
Mid Shore

Comprehensive Economic Development Strategy

CEDS

Revised March 18, 2015



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INTRODUCTION

The Mid Shore Region of the Eastern Shore of Maryland is facing significant economic challenges due to the diminishing economic returns in our natural resource based industries and the loss of large manufacturing and food processing companies that have traditionally been the foundation of the local economy. In November 2002, Black and Decker announced that it would close its power tool manufacturing facility in Easton, Maryland by December 2003. Black and Decker employed approximately 1,250 people. The economic impact was felt throughout the Mid Shore Region of Caroline, Dorchester, and Talbot Counties and beyond. Therefore, local governments and citizens actively searched for opportunities to maintain viable agriculture and fishing industries and foster the development of new technology based business clusters that would provide living wage jobs for the existing and future workforce. The Comprehensive Economic Development Strategy (CEDS) process has been a valuable and timely venue for addressing our economic development needs.

The efforts of the CEDS Committee have been rewarded over the past several years.

- In 2003 the Department of Commerce's Economic Development Administration (EDA) awarded \$50,000 to the Chesapeake Bay Region Technical Center of Excellence (CBRTCE) to facilitate an Economic Adjustment Strategy in response to the closing in November 2002 of the largest employer in the mid shore region, Black and Decker.
- In 2004 EDA invested \$2.1M in the Ridgely Technology and Business Park located in Caroline County. The project leveraged \$5M dollars in state funds and will attract approximately \$60M in private sector investment. It is projected that the completion of the first phase of the development will create 400 new jobs that pay higher than average wage.
- In 2005 EDA awarded \$60,000 to the Eastern Shore Entrepreneurship Center to assist in the management of its near-equity loan funds targeted to knowledge-based, technology-based, and start-up small businesses, as well as, CEO roundtables that will encourage the formation of new companies through information exchange and mentoring.
- June 25, 2007 Maryland Broadband Cooperative was awarded \$3.2M by EDA to install fiber optic broadband network to serve high technology business on the Eastern Shore of Maryland. The venture will create 1,000 new jobs and generate \$117M in private investment.
- In 2008 the Eastern Shore Entrepreneurship Center received a \$45,000 investment to improve the competitiveness of existing businesses and help develop new ones.
- September 5, 2008 the capacity building program the GeoDASH Initiative, a partnership between the Mid-Shore Regional Council, Tri-County Council for the Lower Eastern Shore of Maryland, Salisbury University's Business, Economics, and Community Outreach Network, Franklin P. Perdue School of Business at Salisbury University (BEACON) and Eastern Shore Regional GIS Cooperative (ESRGC), was awarded \$110,000 by the EDA.
- September 18, 2009 EDA invested \$3M in the Dorchester County Business and Technology Park in Dorchester County. The Park will support the creation of 545 jobs. It will also leverage over \$5.4M in public investment (State of Maryland, Dorchester County and the City of Cambridge), and will attract over \$30.4M in private sector investment.
- November 6, 2009 the U.S. Department of Commerce's National Telecommunications and Information Administration (NTIA) announced that it awarded grants to the Maryland Broadband Cooperative (Mdbc) for broadband data collection and mapping activities, as well as, broadband

planning activities. MDBC is the designated entity for the State of Maryland with regards to these activities.

- In November 2009 the Mid-Shore Regional Council received designation as an EDA Economic Development District (EDD).
- June 18, 2010 the GeoDASH Initiative was awarded \$129,000 by EDA to expand the capacity building program.
- In April 2011 Dorchester County was awarded \$607,750 by EDA for the renovations of a manufacturing building that supports the production of a new recyclable green end product. This project allowed the region to retain 102 jobs.
- August 12, 2011 the GeoDASH Initiative was awarded \$120,000 by the EDA to continue expanding this capacity building program.
- September 7, 2012 the Mid-Shore Regional Council was awarded \$50,000 in support of its partnering with the Eastern Shore Entrepreneurship Center to expand the opportunities for entrepreneurs through the co-working spaces initiative – hotDesks.org.
- August 16, 2013 Talbot County and the Town of Easton were awarded a \$1.65 million EDA grant to support the construction of the sewer force main system to benefit the Shore Health System's Medical Center Campus. This Regional Medical Facility will help retain the region's largest employer, University of Maryland Medical Shore Regional Health (UMSRH), which sustains over 2,100 full-time jobs. In combination with ancillary private healthcare related businesses UMSRH anticipates the creation of 330 new jobs.

While steady progress is being made the Mid-Shore economy still faces a myriad of challenges that include limited access to affordable high speed broadband services, a shortage of affordable housing, an inadequate supply of skilled workers, low per capita income, and more layoffs in the manufacturing sector. The CEDS committee members recognize their work is just beginning.

The Process and Public Participation

This Comprehensive Economic Development Strategy combines the data, recommendations and conclusions from the Governor's Task Force Report on Economic Development for Maryland's Eastern Shore, the Dorchester County CEDS, the Caroline County Overall Economic Development Program Plan (OEDP) and goals from the Talbot County Economic Development Commission. The previous research and strategic planning efforts defined the strengths and challenges of the Mid Shore economy. The Mid Shore CEDS committee used these resources to refine our regional economic development goals and identify industry clusters that are the focus for future projects that will mitigate the existing barriers to job creation, build essential infrastructure, and strengthen and diversify the regional economy.

In 2003, the CEDS Committee met once a month for 6 months to review and debate all the elements of the strategy. To provide professional guidance and develop policy recommendations a Steering Committee was created. The Steering Committee consists of the Economic Development Directors from each county, one citizen/business volunteer from each county and the Executive Director of the Mid-Shore Regional Council.

The CEDS committee developed a draft CEDS document. The draft was presented in public forums at the Caroline and Dorchester Board of County Commissioner meetings and to the Talbot County Council for further review and comment. After all public comment was reviewed and incorporated the document was submitted to the EDA. With the successful completion and approval of the Mid-Shore CEDS the committee agreed to meet twice a year to conduct future revisions and/or updates.

During this past year's meetings the CEDS Committee examined and discussed the Goals and Objectives of the strategy. The Committee reviewed the Action Plan and examined the projects and made appropriate changes and additions. After all updates were approved at the Committee's January 6, 2015 meeting, the document was revised to reflect the changes. The Analysis section was also amended with updated statistical information.

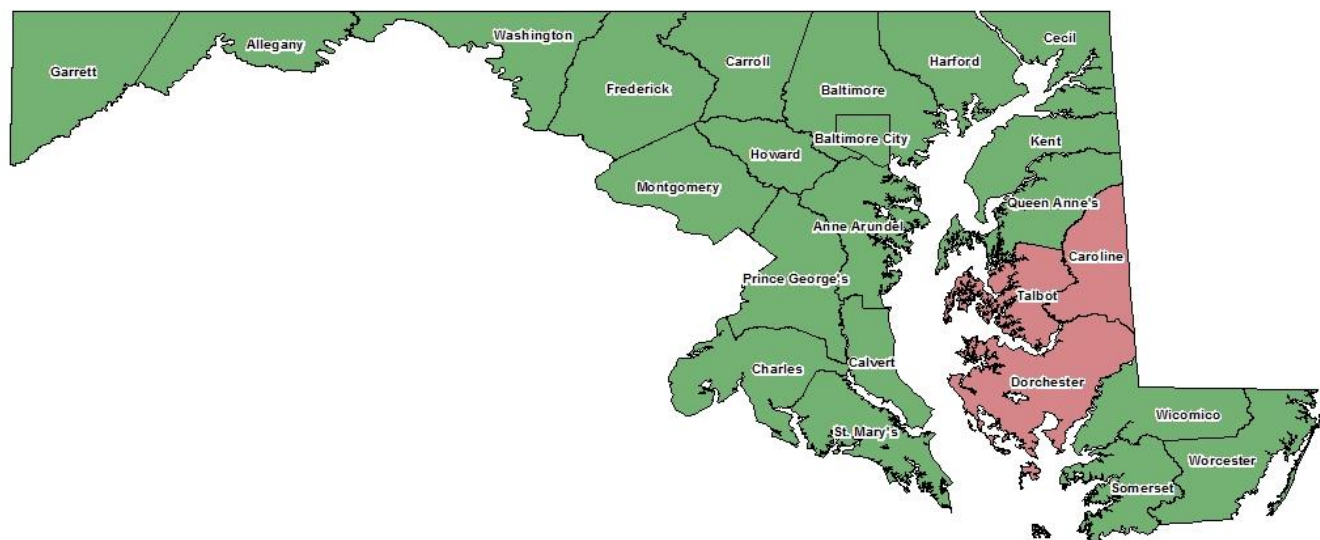
The revised CEDS was included on the agenda of the publicly announced meeting of the Mid-Shore Regional Council (MSRC). During the March 18, 2015 MSRC meeting the CEDS was further discussed and ratified. Following the meeting the MSRC conducted a 30 day public notice and comment period for the CEDS prior to its submission to EDA in April 2015.

The CEDS Committee

The Mid-Shore Regional Council (MSRC) is the lead agency in the CEDS process. The staff and Council members have established and maintain a committee to oversee the process. Scott Warner, the MSRC Executive Director, is the facilitator. To ensure that needs and interests from the entire community are included, the committee is comprised of stakeholders from the major business, education and civic groups. The Committee includes representatives from private companies, local governments, agriculture, education, public health agencies, ethnic groups and women. These participants bring the skills, experience and the political will to the process that is necessary for successful program development and implementation. Each county appoints their CEDS representatives. The steering committee identifies and recruits other community leaders to ensure adequate representation and compliance with federal statutes. All members are volunteers and serve a term of one year. After one year they are given the option to continue or recommend a replacement that can represent their community's interest.

See **Appendix A** for a complete list of CEDS committee members.

Mid-Shore Counties (Caroline, Dorchester, Talbot)



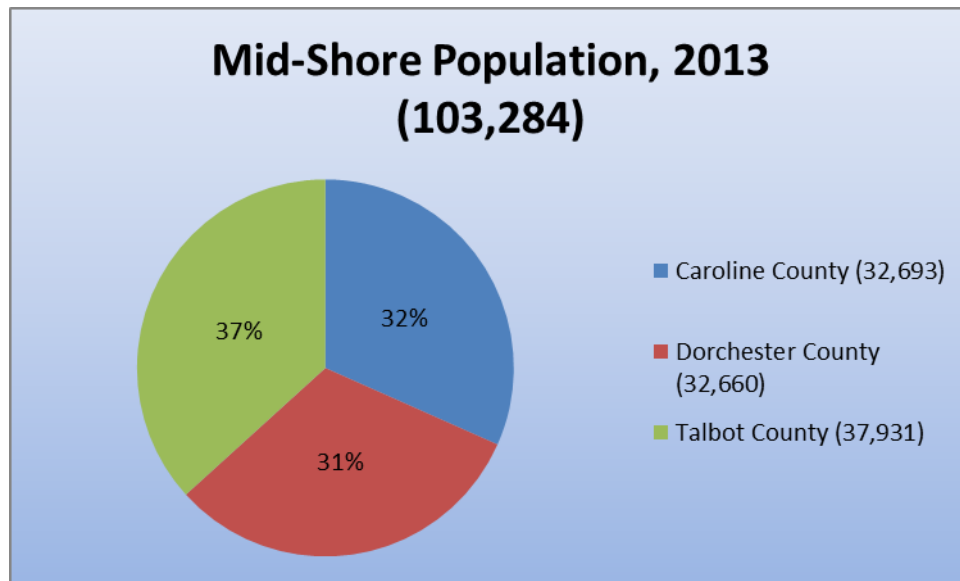
CHAPTER 1 - ANALYSIS

SUMMARY OF EXISTING CONDITIONS AND BACKGROUND

1.1 Demographic, Socioeconomic and Labor Force Data

Population

The population of the Mid Shore Region is evenly distributed between the three Counties. Most of the growth is occurring in Caroline and Talbot County. From 2000 to 2013 the population in Caroline County increased 9.8 percent and the population in Talbot County increased 12.2 percent. The population in Dorchester County has increased 6.5 percent between 2000 and 2013. Much of the growth occurring on the Eastern Shore is located in the Mid-Shore Region. (Source: Population Division, U.S. Census Bureau, release date March 14, 2013 (for 2011 and 2012 estimates). Intercensal estimates for 2000 to 2010 period.)



(Source: Population Division, U.S. Census Bureau, release date March 27, 2014)

http://planning.maryland.gov/msdc/Pop_estimate/Estimate_13/county/table1_2013.pdf

There are several factors contributing to this rise in growth:

- Overcrowding in the cities and suburbs on the western shore
- Less expensive housing and low crime rates
- Lower taxes and a larger supply of land
- Quality of life
- Access to recreational activities on the rivers and bays

Growth rates have averaged approximately 1.1 percent annually for the last 30 years in Caroline and Talbot Counties and are expected to continue to rise over the next 20 years. Dorchester County has averaged a 1.0 percent annual increase over the past 30 years. From 2000-2010, Talbot County had higher growth rates than Caroline and Dorchester and now surpasses Dorchester in population size. (Source: U.S. Census Bureau, Census 2010, 2000, 1990 Redistricting Data) .

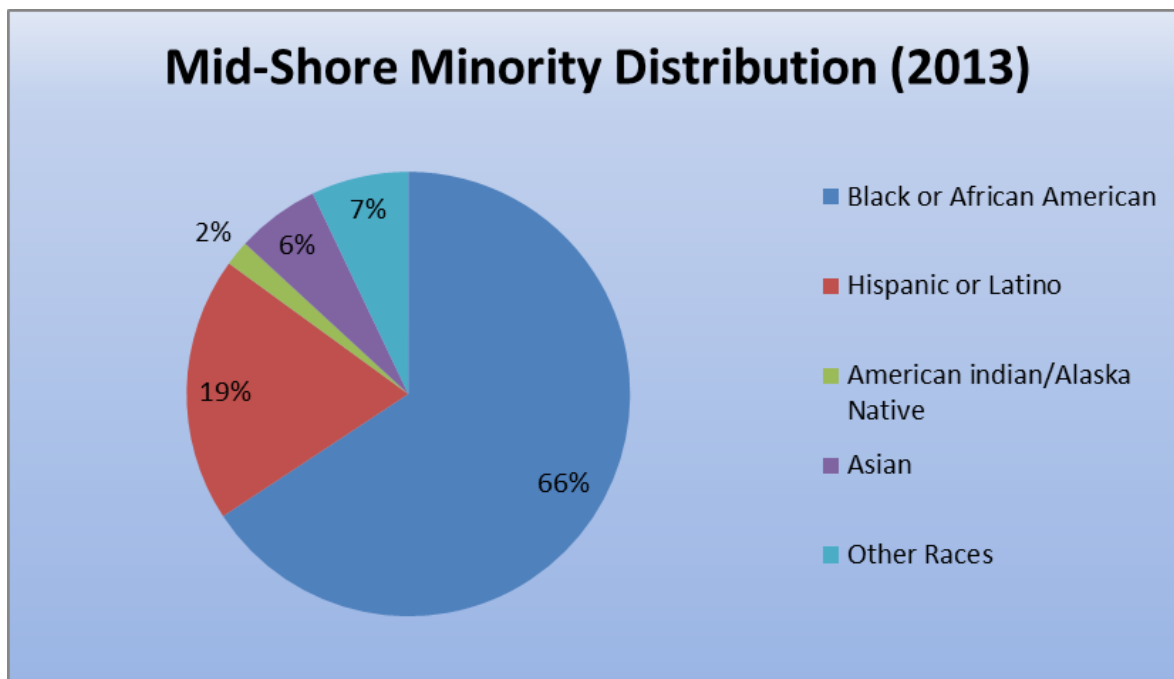
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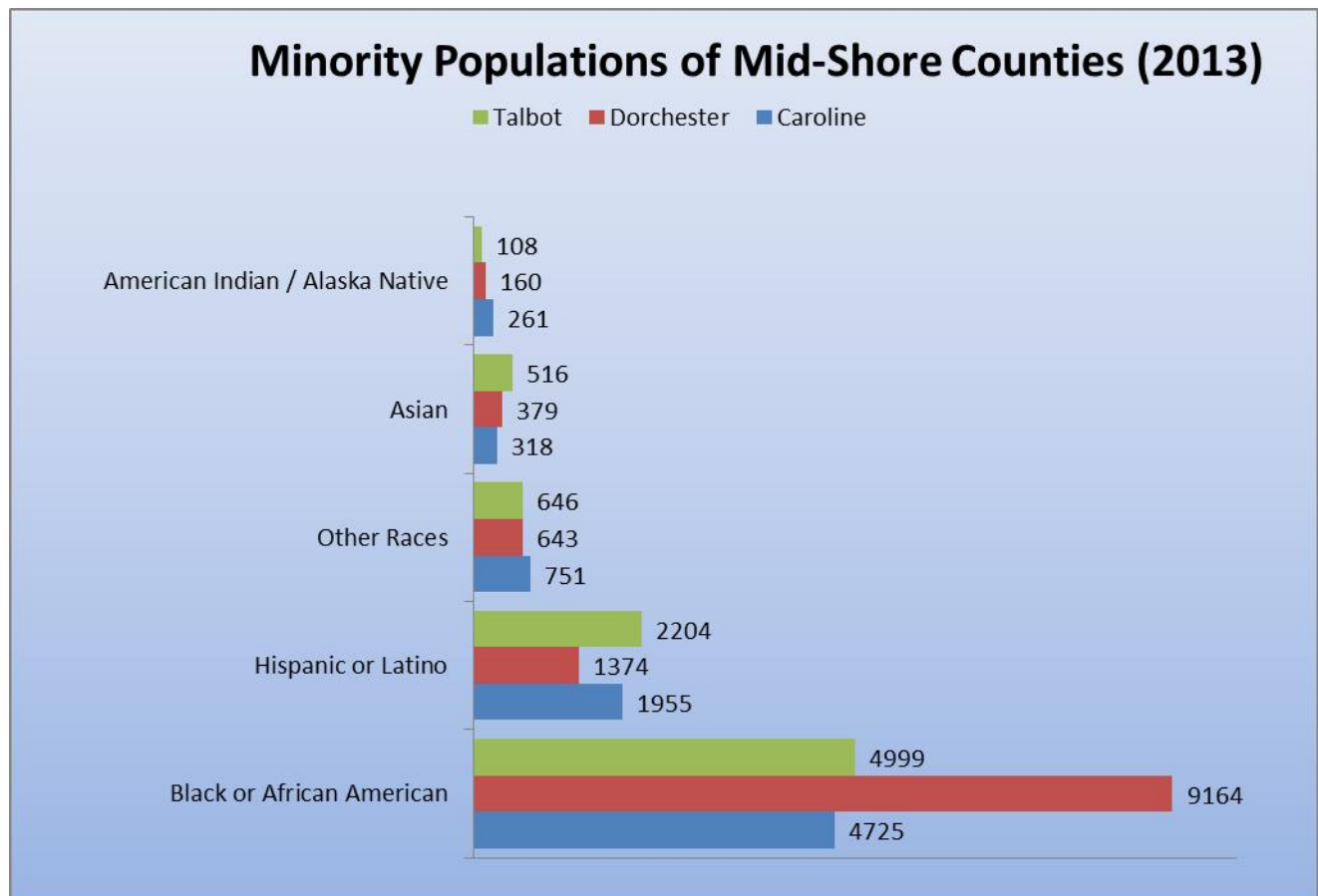
Talbot County has the highest share of population of people 65 and over with a 26.0 percent rate for this age group. This concentration is due mainly to an immigration of retirees. (Source: U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, American Community Survey, Census of Population and Housing, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits)

Minority Population

The Mid Shore Region has 28,732 minority persons, representing 26.4 percent of the total population. (Source: U.S. Census Bureau, June, 2014.)

http://planning.maryland.gov/msdc/Pop_estimate/estimate_10to12/CensPopEst10_12.shtml

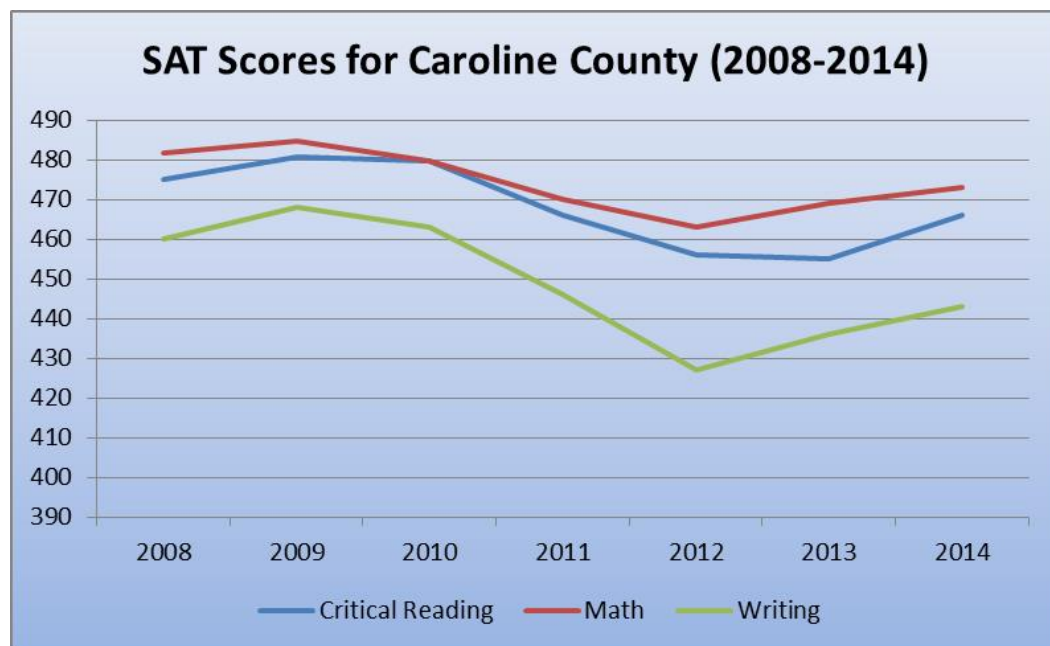
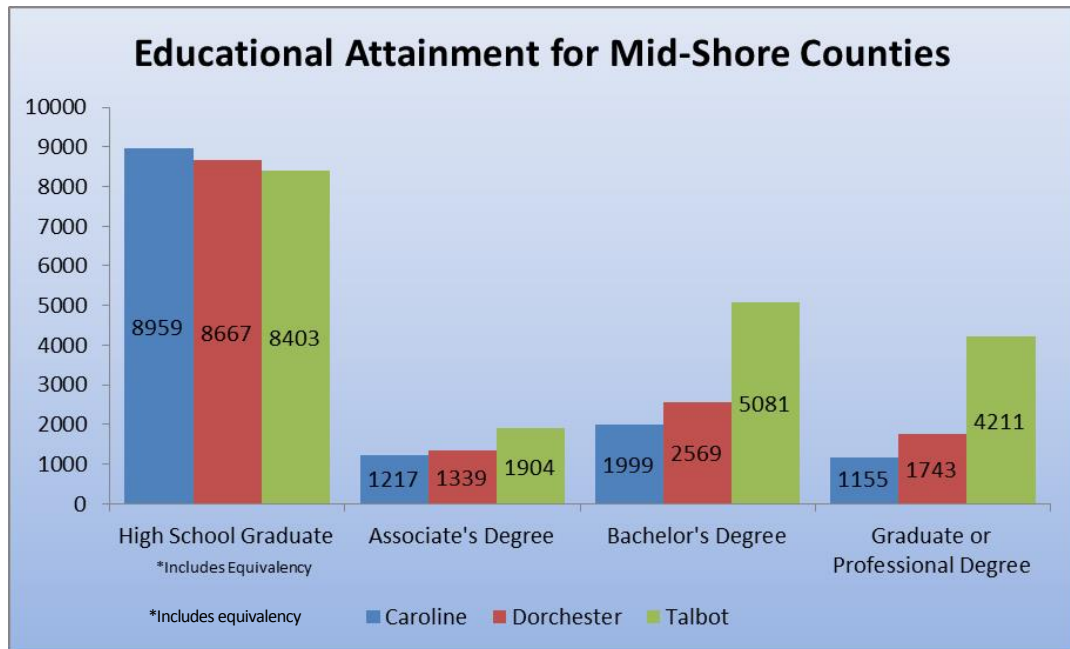


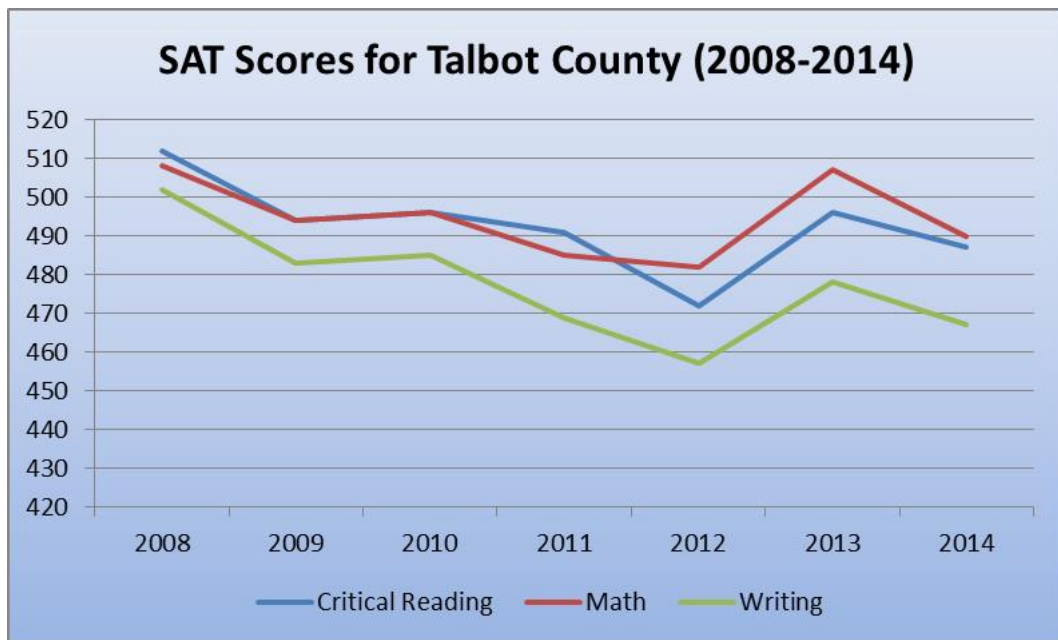
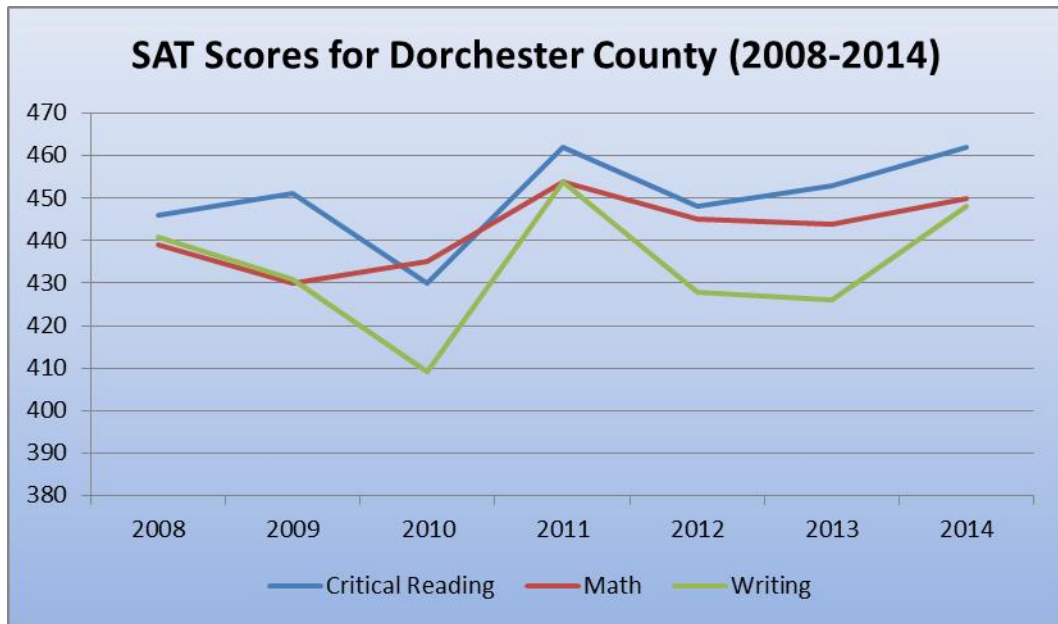


(Source: U.S. Census Bureau, June, 2014. Prepared by the Maryland Department of Planning)

Educational Attainment

The following data was provided by the US Census Bureau, 2011-2013 American Community Survey, 3 year estimates. All three counties in the region are dedicated to providing a high quality education for young people and adults. Constantly improving the education system is a top priority for the elected officials of all the Mid Shore counties.

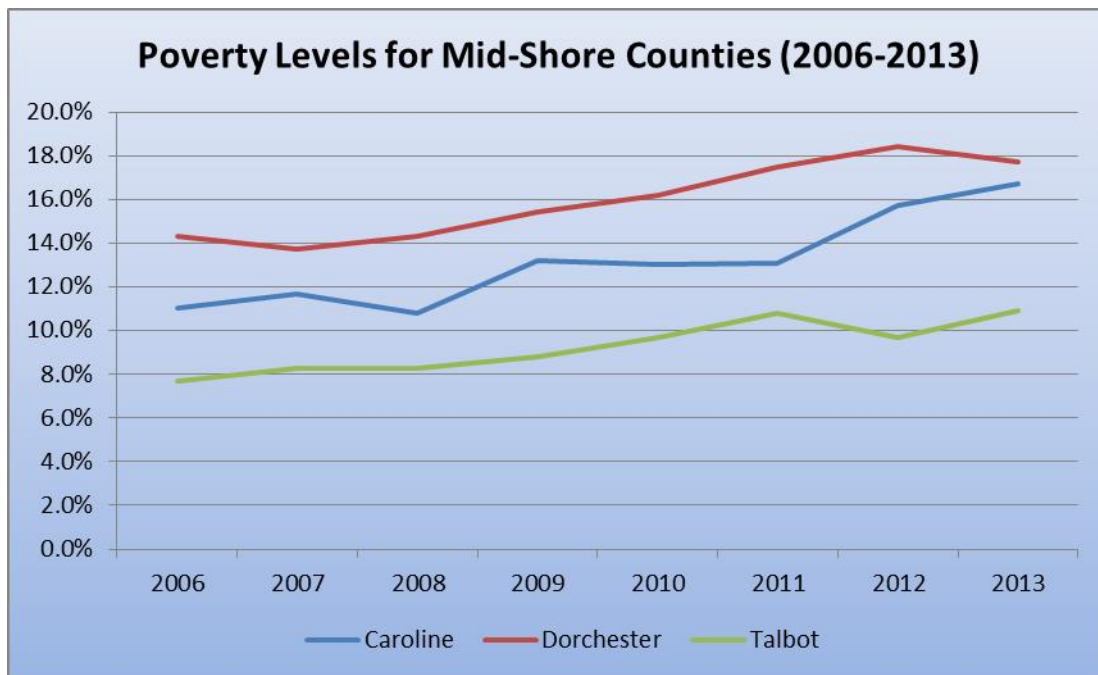




Source: 2014 Maryland State Department of Education Division of Curriculum, Assessment, and Accountability
<http://www.mdreportcard.org/index.aspx?K=05AAAAA>

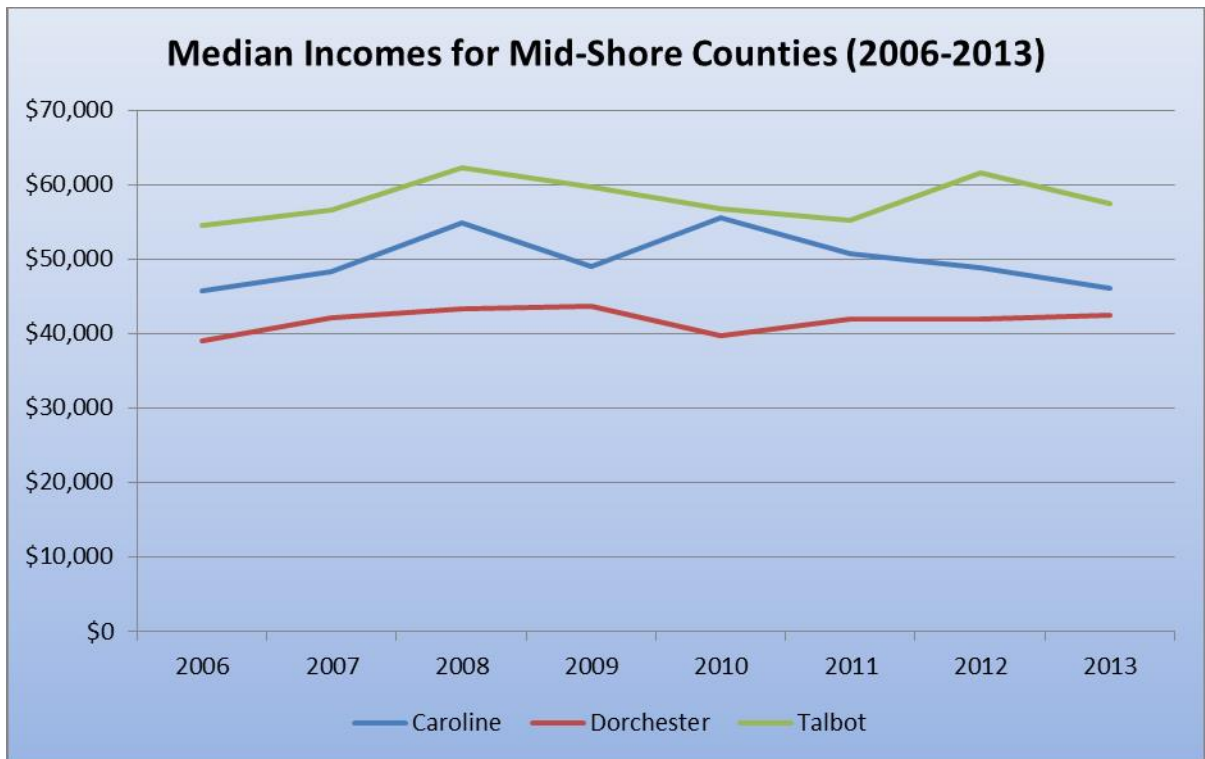
Income

Information on median household income was made available from 2010 U.S. Census data.



(Source: U.S. Census Bureau, *Small Area Income and Poverty Estimates*, December 2014)

The level of economic distress in the region is immediately evident when compared with the state figures. It should be noted that Talbot County appears to have a significantly higher median income than Caroline and Dorchester, however, a large percentage of the population has incomes in line with those of Caroline and Dorchester. The figures for Talbot are somewhat skewed due to large incomes of a few individual families and high net worth individuals.



Annual Average Weekly Wage for Caroline County, 2007-2013								
	2007	2008	2009	2010	2011	2012	2013	Percent Change
Federal Government	\$806	\$778	\$802	\$718	\$848	\$897	\$902	11.9%
State Government	\$718	\$761	\$759	\$707	\$699	\$728	\$788	9.7%
Local Government	\$757	\$785	\$824	\$819	\$781	\$785	\$797	5.3%
Private	\$573	\$586	\$582	\$596	\$626	\$659	\$668	16.6%
Natural Resources and Mining	\$447	\$481	\$502	\$558	\$521	\$559	\$547	22.4%
Construction	\$648	\$652	\$687	\$706	\$694	\$718	\$737	13.7%
Manufacturing	\$645	\$688	\$700	\$695	\$734	\$773	\$755	17.1%
Trade, Transportation and Utilities	\$626	\$646	\$634	\$653	\$669	\$692	\$665	6.2%
Information Technology	\$715	\$770	\$796	\$949	\$996	\$1,693	\$1,669	133.4%
Financial Services	\$620	\$660	\$693	\$672	\$709	\$753	\$781	26.0%
Professional and Business Services	\$552	\$593	\$492	\$505	\$949	\$978	\$1,042	88.8%
Education and Health	\$519	\$515	\$431	\$527	\$521	\$527	\$537	3.5%
Leisure and Hospitality	\$229	\$224	\$225	\$249	\$234	\$245	\$242	5.7%
Other	\$463	\$489	\$494	\$537	\$564	\$567	\$567	22.5%

(Red highlighted wages are selected as the lowest for the industry for the years 2007-2013. Green highlighted wages are selected as the highest average wage for a given industry. Source: MD Dept. of Labor, Licensing and Regulation)

<http://www.dlir.state.md.us/lmi/emppay/>

Annual Average Weekly Wage for Dorchester County, 2007-2013								
	2007	2008	2009	2010	2011	2012	2013	Percent Change
Federal Government	\$938	\$898	\$940	\$1,053	\$1,134	\$1,148	\$1,143	21.9%
State Government	\$835	\$862	\$881	\$862	\$870	\$892	\$906	8.5%
Local Government	\$750	\$788	\$816	\$797	\$793	\$796	\$805	7.3%
Private	\$583	\$598	\$603	\$604	\$602	\$631	\$646	10.8%
Natural Resources and Mining	\$611	\$601	\$635	\$678	\$751	\$847	\$866	41.7%
Construction	\$666	\$677	\$677	\$710	\$715	\$727	\$758	13.8%
Manufacturing	\$663	\$715	\$685	\$698	\$694	\$750	\$784	18.3%
Trade, Transportation and Utilities	\$529	\$545	\$543	\$545	\$526	\$538	\$559	5.7%
Information Technology	\$568	\$539	\$530	\$581	\$571	\$518	\$560	-1.4%
Financial Services	\$898	\$773	\$771	\$852	\$943	\$792	\$793	-11.7%
Professional and Business Services	\$448	\$510	\$608	\$723	\$804	\$905	\$785	75.2%
Education and Health	\$721	\$754	\$767	\$665	\$612	\$655	\$705	-2.2%
Leisure and Hospitality	\$346	\$327	\$334	\$347	\$370	\$393	\$366	5.8%
Other	\$410	\$386	\$391	\$355	\$337	\$334	\$386	-5.9%

Annual Average Weekly Wage for Talbot County, 2007-2013								
	2007	2008	2009	2010	2011	2012	2013	Percent Change
Federal Government	\$1,058	\$1,004	\$1,012	\$955	\$1,083	\$1,119	\$1,111	5.0%
State Government	\$657	\$696	\$690	\$653	\$652	\$761	\$795	21.0%
Local Government	\$773	\$810	\$822	\$851	\$849	\$867	\$892	15.4%
Private	\$646	\$657	\$676	\$688	\$699	\$726	\$720	11.5%
Natural Resources and Mining	\$531	\$569	\$584	\$565	\$622	\$665	\$665	25.2%
Construction	\$741	\$764	\$770	\$762	\$760	\$799	\$841	13.5%
Manufacturing	\$675	\$677	\$643	\$737	\$730	\$742	\$731	8.3%
Trade, Transportation and Utilities	\$534	\$541	\$535	\$548	\$554	\$567	\$578	8.2%
Information Technology	\$702	\$655	\$726	\$793	\$786	\$901	\$851	21.2%
Financial Services	\$984	\$1,036	\$1,046	\$1,039	\$1,118	\$1,160	\$1,190	20.9%
Professional and Business Services	\$805	\$789	\$861	\$859	\$847	\$959	\$904	12.3%
Education and Health	\$773	\$818	\$848	\$874	\$897	\$897	\$878	13.6%
Leisure and Hospitality	\$335	\$335	\$342	\$349	\$359	\$363	\$360	7.5%
Other	\$520	\$525	\$521	\$491	\$509	\$527	\$593	14.0%

According to the Maryland Department of Labor, Licensing and Regulation and the Bureau of Labor Statistics as of December 2014, the State unemployment rate was 5.9%. The average unemployment rate for 2014 for Caroline County's was 6.7%. Dorchester County's unemployment rate was 8.5%. Talbot County's unemployment rate average for 2014 was 5.9%.

(Source: <http://dllr.maryland.gov/lmi/laus/>)



Dorchester County's unemployment rate has historically been one of the highest in the state due to a number of plant closings in recent years. Almost 1,000 jobs have been lost from 2004-2009. In 2008 alone, Dorchester County lost approximately 376 jobs. All three counties show significantly higher unemployment during the winter months due primarily to the seasonal nature of the employment in this area.

In 2003, Airpax, a Dorchester County company experienced 15 layoffs and the Caroline County company Interactive Marketing Systems/New Roads dismissed 150 workers. The largest employer in the Region, Black and Decker, located in Easton, Maryland announced that the plant would close by December 2003. More than 1,250 people worked at the Easton facility and approximately 75% of the workforce resides in the Mid Shore Region.

Labor Force Characteristics

The following charts show labor force statistics by industry for the years 2007 - 2013 in the region.
(Source: Maryland Department of Labor, Licensing and Regulation)

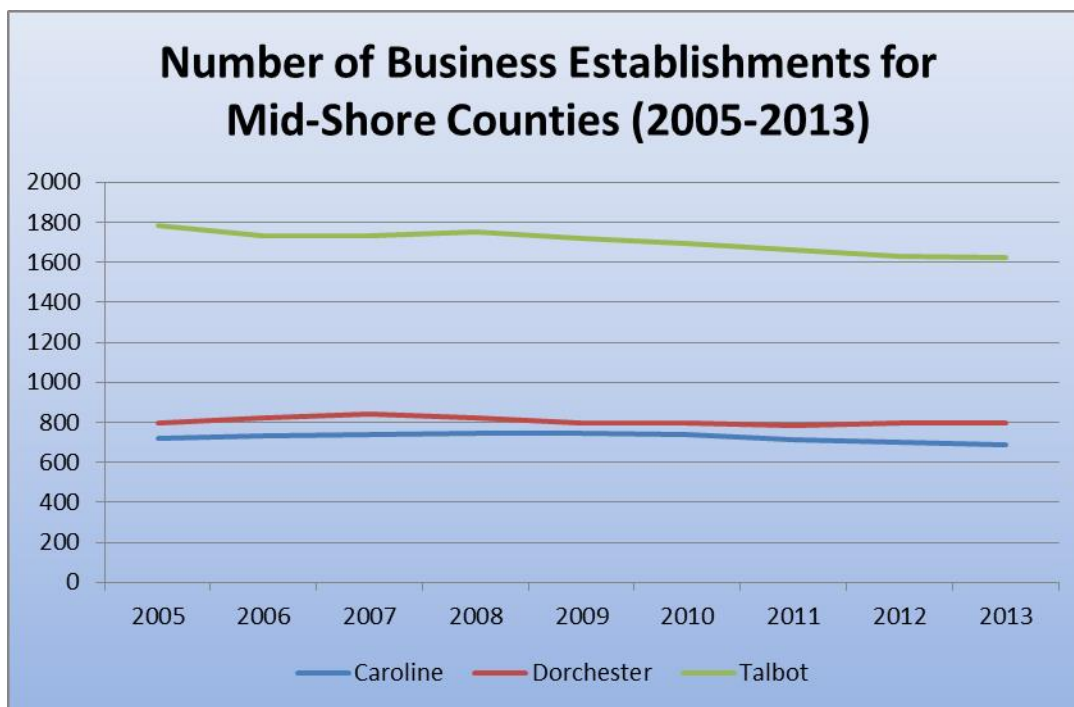
Annual Average Employment for Caroline County, 2007-2013								
	2007	2008	2009	2010	2011	2012	2013	Percent Change
Federal Government	86	86	85	103	81	74	73	-15.1%
State Government	178	174	169	168	167	167	189	6.2%
Local Government	1,307	1,317	1,360	1,313	1,345	1,365	1,377	5.4%
Private	7,364	7,314	7,007	6,891	6,811	7,220	7,727	4.9%
Natural Resources and Mining	194	200	222	184	179	454	492	153.6%
Construction	834	809	639	603	515	557	606	-27.3%
Manufacturing	1,404	1,228	1,025	1,079	1,185	1,169	1,143	-18.6%
Trade, Transportation and Utilities	2,284	2,294	2,248	2,245	2,209	2,229	2,656	16.3%
Information Technology	10	10	11	8	6	81	163	1530.0%
Financial Services	308	261	252	234	224	216	211	-31.5%
Professional and Business Services	348	405	502	475	356	379	395	13.5%
Education and Health	1,245	1,336	1,345	1,338	1,356	1,382	1,373	10.3%
Leisure and Hospitality	523	551	520	478	552	525	492	-5.9%
Other	214	220	243	247	229	228	196	-8.4%

(Red highlighted totals are selected as the lowest for the industry for the years 2007-2013. Green highlighted totals are selected as the highest average for a given industry. Source: MD Dept. of Labor, Licensing and Regulation)

<http://www.dlir.state.md.us/lmi/emppay/>

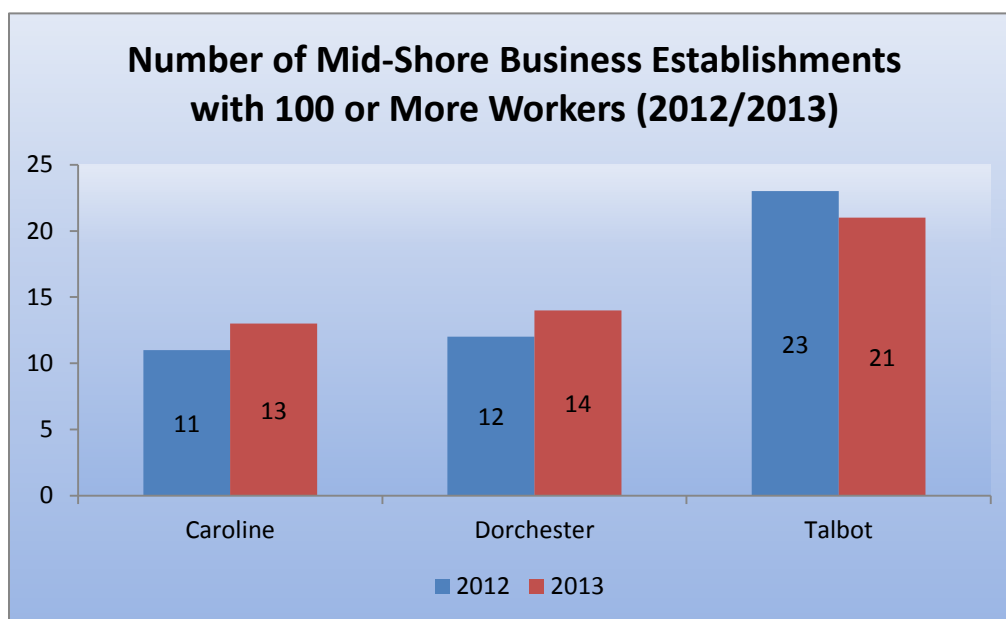
Annual Average Employment for Dorchester County, 2007-2013								
	2007	2008	2009	2010	2011	2012	2013	Percent Change
Federal Government	137	150	155	211	200	197	190	38.7%
State Government	800	792	760	779	786	798	785	-1.9%
Local Government	1,379	1,401	1,376	1,342	1,325	1,315	1,305	-5.4%
Private	9,456	9,053	8,888	8,939	8,693	8,538	8,621	-8.8%
Natural Resources and Mining	302	283	304	304	271	290	314	4.0%
Construction	671	612	487	427	387	365	389	-42.0%
Manufacturing	2,534	2,279	2,275	2,502	2,056	2,070	2,076	-18.1%
Trade, Transportation and Utilities	1,985	1,908	1,850	1,847	1,933	1,932	1,900	-4.3%
Information Technology	99	95	70	67	56	53	47	-52.5%
Financial Services	334	340	334	339	369	301	297	-11.1%
Professional and Business Services	564	461	457	336	497	501	563	-0.2%
Education and Health	1,315	1,365	1,491	1,522	1,599	1,517	1,453	10.5%
Leisure and Hospitality	1,308	1,349	1,278	1,239	1,206	1,158	1,301	-0.5%
Other	344	361	342	356	319	351	281	-18.3%

Annual Average Employment for Talbot County, 2007-2013								
	2007	2008	2009	2010	2011	2012	2013	Percent Change
Federal Government	252	268	265	300	240	227	218	-13.5%
State Government	198	199	200	201	195	242	236	19.2%
Local Government	1,405	1,414	1,449	1,413	1,408	1,388	1,403	-0.1%
Private	17,604	17,713	16,279	15,847	16,055	16,193	16,512	-6.2%
Natural Resources and Mining	71	74	76	76	69	81	81	14.1%
Construction	1,547	1,391	991	904	863	858	872	-43.6%
Manufacturing	1,686	1,657	1,194	893	969	907	983	-41.7%
Trade, Transportation and Utilities	3,670	3,694	3,343	3,280	3,326	3,331	3,388	-7.7%
Information Technology	321	309	332	281	249	201	193	-39.9%
Financial Services	941	971	821	778	873	869	842	-10.5%
Professional and Business Services	2,438	2,577	2,441	2,508	2,423	2,471	2,594	6.4%
Education and Health	3,314	3,317	3,624	3,625	3,658	3,764	3,876	17.0%
Leisure and Hospitality	2,541	2,646	2,475	2,498	2,527	2,696	2,894	13.9%
Other	1,075	1,077	982	1,004	1,098	1,015	789	-26.6%



(Source: MD Dept. of Labor, Licensing and Regulation)

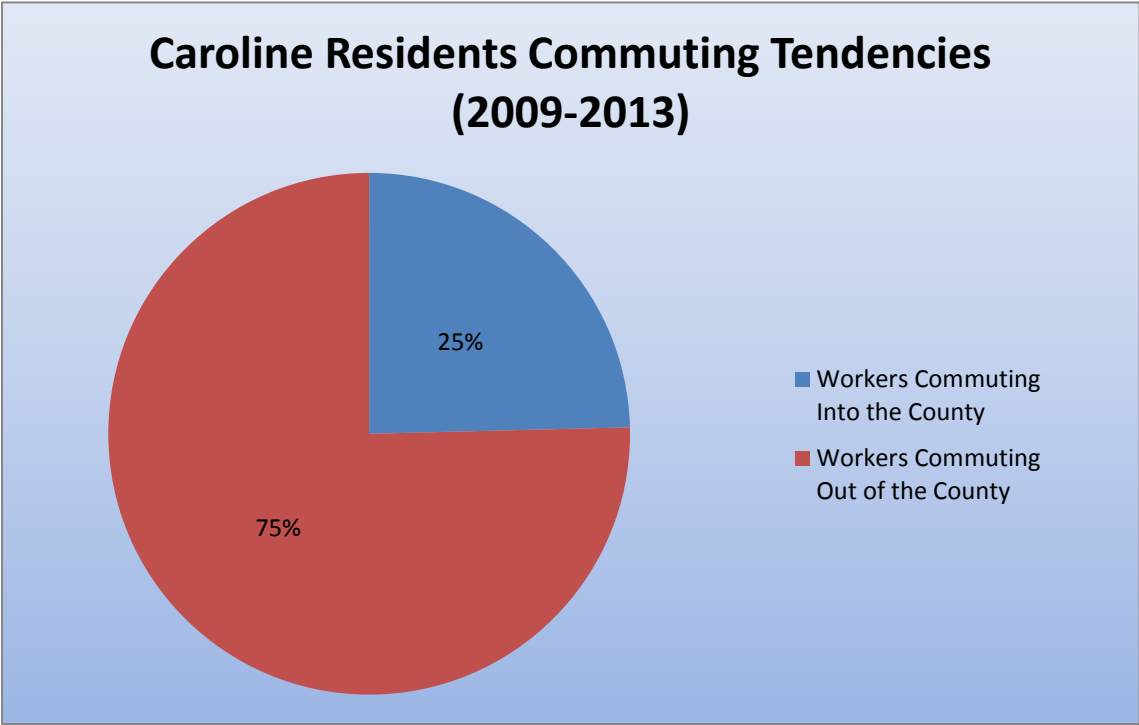
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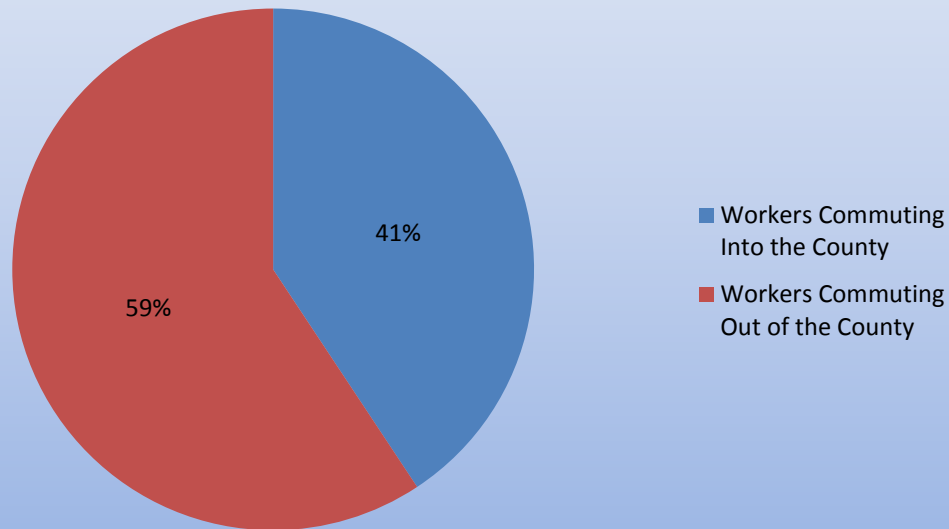
Source: <http://www.dllr.state.md.us/lmi/emplists/>

Mobile Workforce

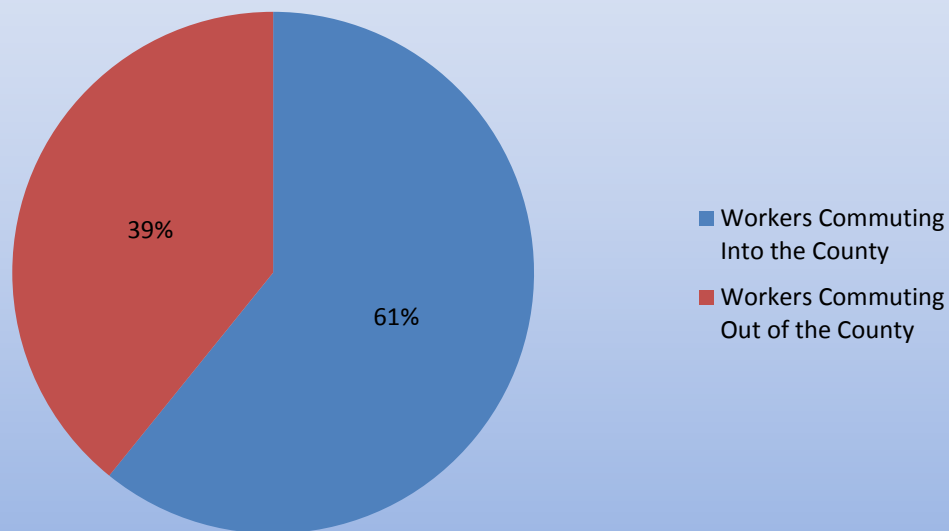
A large number of residents commute outside of their counties to work. According to the Maryland Department of Business and Economic Development data, 77.9 percent of Caroline County residents commuted outside their county to work from 2009-2011; 67.4 percent of Dorchester County residents commute outside the county; and, 55.9 percent of Talbot County residents commute outside their county. This data illustrates the shortage of jobs in the Mid-Shore Region.



Dorchester Residents Commuting Tendencies (2009-2013)



Talbot Residents Commuting Tendencies (2009-2013)



(Source: Maryland Department of Business and Economic Development)

<https://data.maryland.gov/Transportation/Choose-Maryland-Compare-Counties-Transportation-20/ief7-i74z>

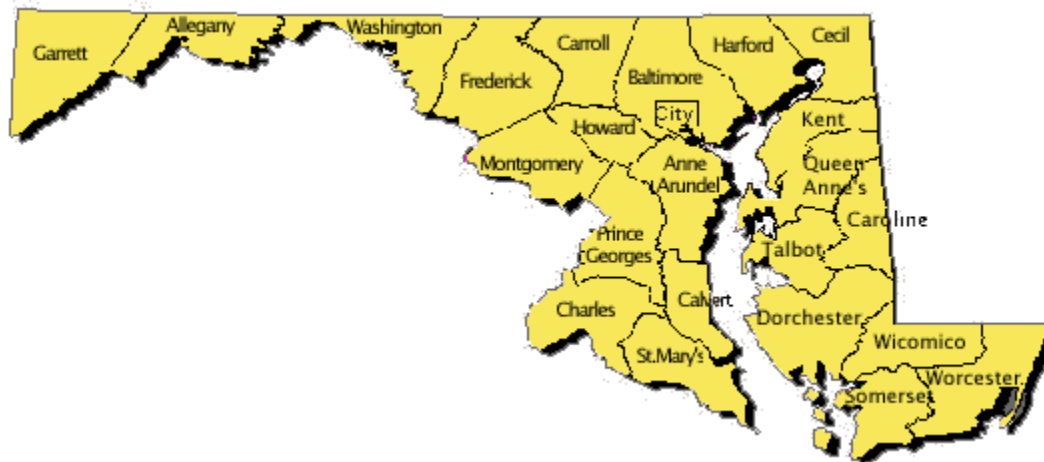
APPENDIX E – COMMUTER PATTERNS OF WORKERS LIVING IN TALBOT, CAROLINE & DORCHESTER COUNTIES STATISTICS FOR BOTH COMMUTING IN AND OUT OF EACH COUNTY FOR EMPLOYMENT.

1.2 Geographic, Climatic, Environmental and Natural Resource Profile

1.2 Geographic, Climatic, Environmental and Natural Resource Profile



Maryland State Map



The Mid Shore Region includes Caroline, Dorchester and Talbot Counties and is comprised of 1,172.63 square miles of land. Caroline has 320.79 square miles of land and 120 miles of shoreline, Dorchester County has 593.22 square miles of land and 1539 miles of shoreline and Talbot County has 258.62 square miles of land and 605 miles of shoreline. (Maryland geological survey 2011) Both Dorchester and Talbot Counties are strongly influenced by water and have a high concentration of areas in the 100-year floodplain, Critical Areas, and in wetlands. Caroline County is the only county on the Eastern Shore which is not bordered by either the Atlantic Ocean or the Chesapeake Bay.

Most of the region is flat. The highest elevation in the region, 77 feet above sea level, is at a site approximately one-half mile north of Mt. Zion in northern Caroline County.

The region is easily accessible by road, air, rail, or water to the New York/Philadelphia/Norfolk corridor. More than 30% of the nation's population and 36% of its manufacturing establishments can be reached overnight by truck or train.

Climate

The region has a temperate climate with warm summers and moderate winters. The highest temperatures usually occur in the months of July and August. The months of January and February have the coldest temperatures. Summer often brings several periods of hot, humid weather. The average length of the growing season is approximately 196 days. Precipitation averages 43.2 inches annually. Prevailing breezes are from the south in the summer. During the winter months, the prevailing winds come from the west and northwest.

Environmental

The region's topography and surface water patterns have created a considerable variety and quantity of tidal and non-tidal, marsh, and forested wetlands. These wetlands are a critical habitat for many forms of plant and animal life, with several species listed as endangered.

A significant percentage of the population lives within the 100-year floodplain and the Critical Area and limits the amount of developable lands. Forty-seven percent of Dorchester County's total acreage is in the Critical Area. Twelve percent of Caroline County's acreage is in the Critical Area, and forty percent of Talbot County's acreage is in the Critical Area.

The Critical Area Act, passed in 1984, was significant and far-reaching, and marked the first time that the State and local governments jointly addressed the impacts of land development on habitat and aquatic resources.

The law identified the "Critical Area" as all land within 1,000 feet of the Mean High Water Line of tidal waters or the landward edge of tidal wetlands and all waters of and lands under the Chesapeake Bay and its tributaries. The law created a statewide Critical Area Commission to oversee the development and implementation of local land use programs directed towards the Critical Area that met the following goals:

- Minimize adverse impacts on water quality that result from pollutants that are discharged from structures or conveyances or that have run off from surrounding lands;
- Conserve fish, wildlife, and plant habitat in the Critical Area; and
- Establish land use policies for development in the Critical Area which accommodate growth and also address the fact that, even if pollution is controlled, the number,

movement, and activities of persons in the Critical Area can create adverse environmental impacts.

The Commission developed criteria that were used by local jurisdictions to develop individual Critical Area programs and amend local comprehensive plans, zoning ordinances, and subdivision regulations. The programs that have subsequently been adopted by local governments are specific and comprehensive. They are designed to address the unique characteristics and needs of each county and municipality and together they represent a comprehensive land use strategy for preserving and protecting Maryland's most important natural resource, the Chesapeake Bay.

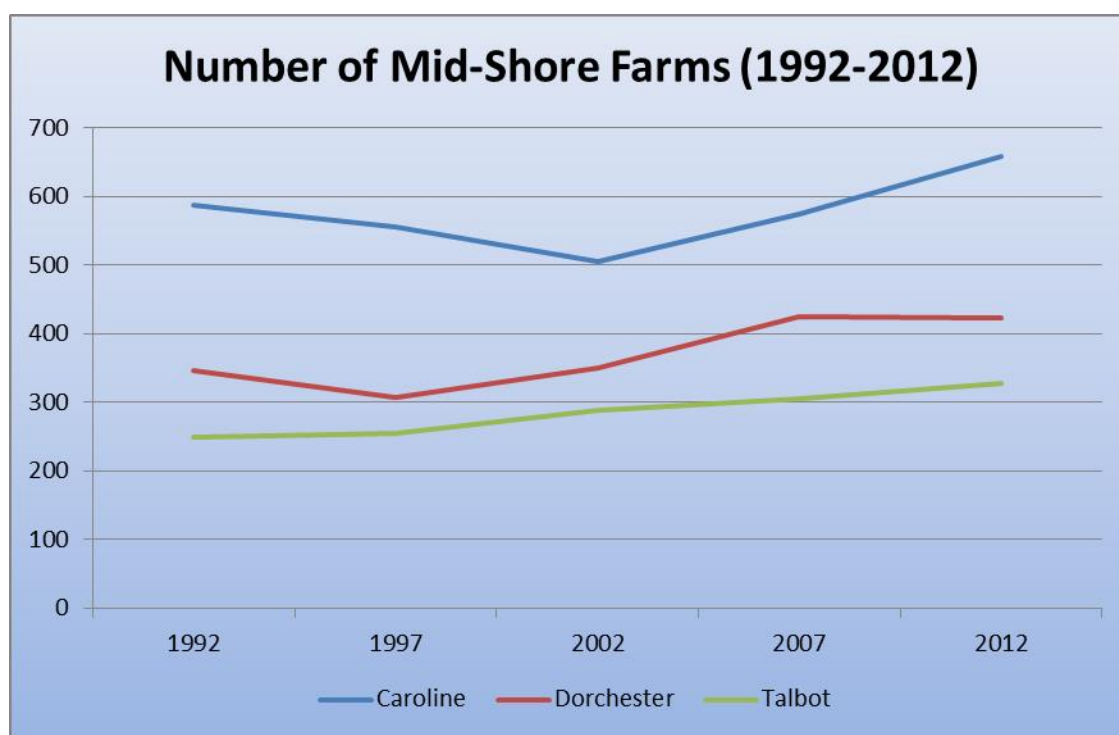
Farm lands also play an important role in the natural environment by providing critical wildlife habitat. Their presence in the region adds to the area of open spaces and plays an important role in the region's economy.

The natural environment has been one of the region's greatest assets in terms of quality of life and potential for developing natural resource based industry clusters. Ironically, this factor also limits the development of the area. The region's unspoiled nature has attracted a large number of visitors and new residents. The challenge has been to preserve the unique characteristics of the region while providing services to the ever-growing population.

Natural Resources

In the Mid Shore Region there are 373,467 acres of land in farms (Census of Agriculture 2007). This number includes cropland and forest lands. In addition the most recent Department of Agriculture Census records the following. The amount of land in farms in Caroline County increased by 15 percent between 2002 and 2007, while the number of Caroline County farms increased in 2012 to 658 from 574 in 2007. The amount of land in farms in Dorchester County decreased by 5 percent from 2007 to 2012, while the number of farms decreased from 424 farms in 2007 to 423 farms in 2012, an decrease of 0.2 percent. The amount of land in farms in Talbot County increased by 10 percent and the number of farms went from 305 farms in 2007 to 328 farms in 2012, an increase of 8 percent. (Source: 2007 and 2012 Census of Agriculture, US Department of Agriculture)

http://www.agcensus.usda.gov/Publications/2012/Online_Resources/County_Profiles/Maryland/



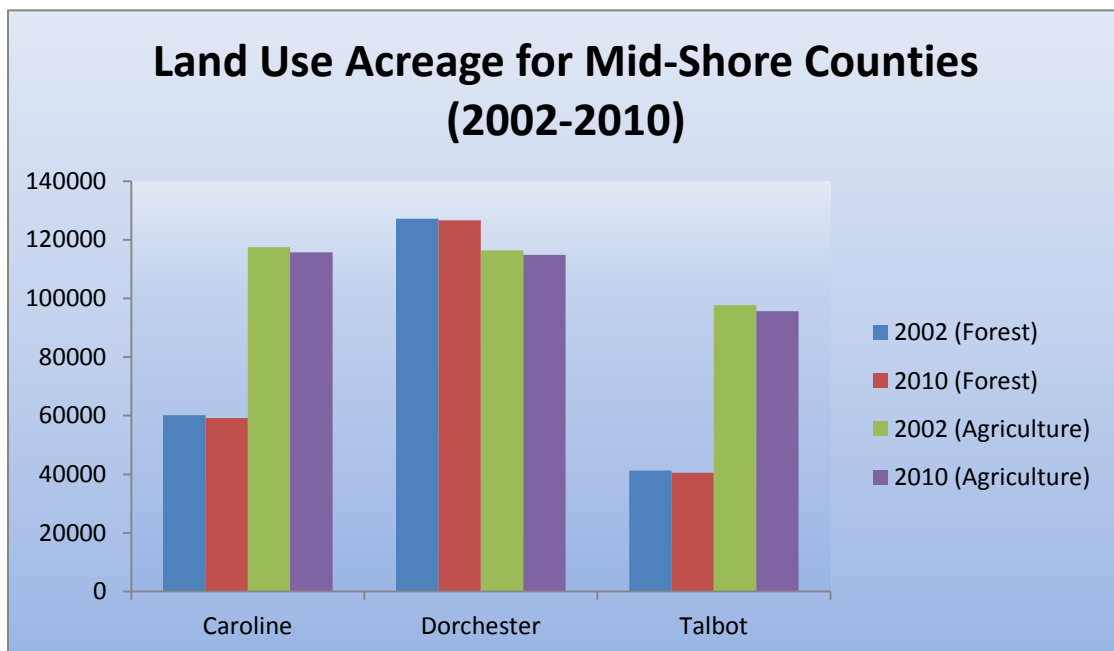
Forest and Farm Lands

Historically, one of the most significant natural resources in the region was its forest lands. However, most of mature forests have been harvested. The remaining woodlands are of marginal quality for forestry purposes but provide significant habitat and erosion control benefits.

Re-forestation is underway on the Eastern Shore to convert agricultural lands back to forest lands. The reforested property is protected by perpetual easements. The farming community is concerned that these conservation measures may retire prime farmland.

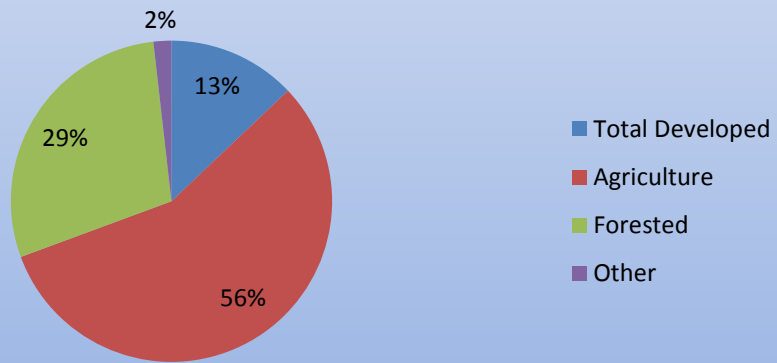
In the Mid Shore Region there are hundreds of thousands of acres of farm land that make a significant contribution to the local economy and play an important role in the local ecology. Innovative and traditional approaches to farming will continue to preserve this valuable resource and protect the region's quality of life.

According to the Maryland Department of Planning, forested lands have increased from 1997 in the Mid Shore counties. In 2010 new land use categories were added to the data collection process, and 2002 and 2010 data were updated. Caroline County went from 60,162 acres in 2002 to 59,122 acres in 2010, which is a loss of 1.7 percent. Dorchester County went from 127,209 acres to 126,705 acres, which is a loss of .4 percent from 2002 to 2010. Talbot County had 41,270 acres in 2002 and 40,513 acres in 2010, which is a loss of 1.8 percent.

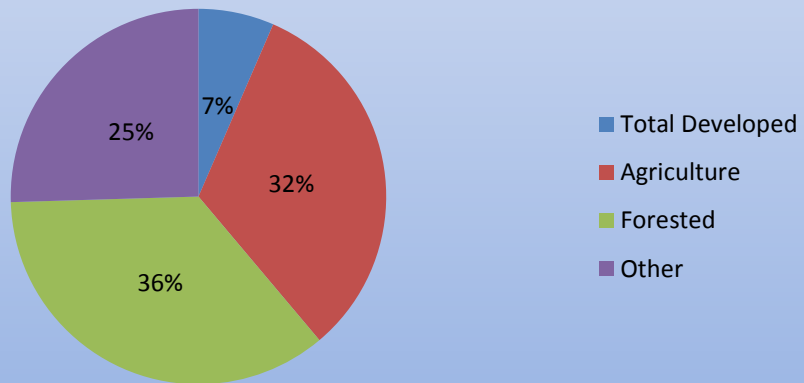


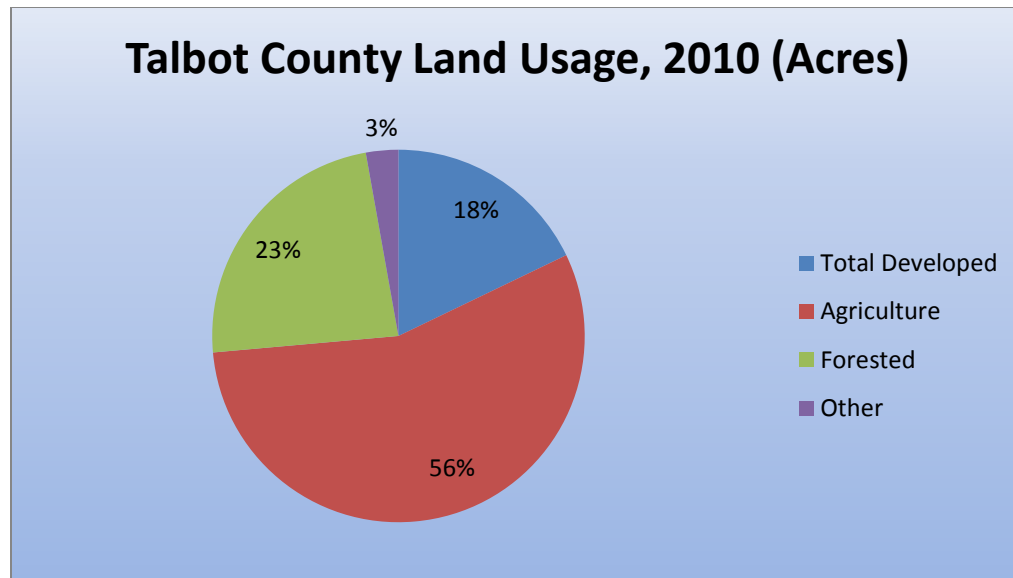
(Source: MD Department of Planning)

Caroline County Land Usage, 2010 (Acres)



Dorchester County Land Usage, 2010 (Acres)





(Source: MD Department of Planning)

<http://planning.maryland.gov/OurWork/LandUse.shtml>

Minerals

The Eastern Shore of Maryland has been identified by the mining industry as a high value target area for sand and gravel operation. The vein of high grade sand is unparalleled in the Mid-Atlantic region. Historically there have always been small sand operations, 10 to 20 acres that provided material for regional road projects and create value added opportunities for our farmers in the region. When they are closed the pits become natural areas or irrigation ponds that become assets to the community or farmer.

Now we are seeing applications being made for 500+ acre operations that will have a dramatic impact on our communities in the form of noise, heavy truck traffic and dust. It is important for the Mid Shore Regional Council to locate model policies that other regions have used to manage the growth of these operations, maintain quality of life and generate tax revenues associated with resource extraction.

Groundwater

The region has a variety and abundance of groundwater resources. The Mid Shore Region experienced one of the wettest summers in recorded history in 2003. However, the Mid Shore Region is situated on vast aquifers. The entire Shore has the availability of 1 million gallons of water a day, and Dorchester County has the availability of 5 million gallons of water a day.

1.3 Infrastructure

One of the Region's major advantages is its accessibility to major markets in the New York/Philadelphia/Norfolk Corridor. The area is readily accessible by road, air, rail or water. More than 30 percent of the nation's population and 36 percent of its manufacturing establishments can be reached overnight by truck or train.

Airports

Scheduled passenger air transportation in this area is available from the Salisbury-Ocean City Regional Airport, Easton Municipal Airport (the second busiest airport in the state), and the Cambridge Dorchester Airport. All three of the airports are capable of landing small jets. The Cambridge Dorchester Airport is petitioning for a runway expansion. Charter air services are available at Easton, Cambridge Dorchester Airport, and Ridgely Air Park. The three county airports contribute approximately \$15 million a year to our economy. The distance to the nearest primary commercial airport in miles from Caroline County is 65 miles, from Dorchester County is 80 miles and Talbot County is 61 miles.

Baltimore Washington International Airport, Reagan National Airport, Dulles International and Philadelphia International Airport also serve the region.

Ports

The area is served by the port of Baltimore, which has a fifty-foot channel. The Port of Baltimore, Maryland was equipped with a bulk grain facility as late as June 2001; however, that facility no longer operates.

The grain pier and its grain elevator were damaged in a storm in June 2001. The grain elevator moved about 855,400 tons of grain in 2000, impacted 110 jobs, and generated about \$12 million annually in business and government revenue and about \$2 million annually in state and local taxes, according to the Maryland Port Administration. The port officials say talks regarding the construction of a new grain pier and elevator are at a standstill.

The Port of Salisbury is the second largest port in Maryland after Baltimore, handling 1.7 million tons valued at approximately \$200,000,000 in 2013. *(Source: Delmarva Water Transport Committee)*

Rail

Rail service is also available from the Maryland-Delaware Railroad Company with access to Norfolk-Southern. There are 39 miles of freight railroad track in Dorchester and Caroline County managed

by the Maryland Delaware Railroad which connects with Norfolk Southern to service the Mid Shore Region. The Maryland Delaware Railroad is in process of upgrading tracks from Hurlock to Seaford Delaware and has begun an active campaign to grow freight business on the Eastern Shore. A Marketing Plan for this effort is nearing completion. Of special interest is existing vacant industrial property located on rail siding that could be developed into continued rail use. There is also interest in any new development that would require additional rail served opportunities.

Highways

Several major highways serve the area, including U.S. Route 50, U.S. Route 301, U.S. Route 13 and MD Route 404. Even though there are no interstate systems the State Highway Systems are two and three lanes throughout most of the region, and provide access to points north, south, east and west.

Public Transit

Transit services in the three county areas are provided under contract by Delmarva Community Transit. Services include medical and senior citizen demand services and fixed route county and regional service. While most of the region is served by the fixed routes, there are gaps in coverage in the less populated areas of the counties. The regional system, Maryland Upper Shore Transit (MUST), provides low cost and seamless service for the general public from Kent Island to Ocean City with convenient free transfer points at key locations on the shore.

MUST is a coordinated effort of several Upper Shore agencies and governments to provide a regional transit system for Kent, Queen Anne's, Talbot, Caroline, and Dorchester Counties. Transit services are provided by Queen Anne's County Ride and Delmarva Community Transit (DCT). DCT is a private company under contract to the counties and County Ride is operated by Queen Anne's County. The system also includes Shore Transit, which provides scheduled routes on the lower shore. The MTA and the Maryland Department of Human Resources have provided funding. Overall management of the regional system is the responsibility of the Transportation Advisory Group (TAG). The County Commissioners of the five Upper Shore counties appoint the members of the TAG. In January 2002 the TAG began a pilot program to determine the feasibility and cost effectiveness of a regional transit system. MUST began operations in August 2002 and the MSRC assumed administration of the pilot project in July 2003

Water and Sewer

Municipal water and sewer systems in Caroline County are in use in Denton, Federalsburg, Greensboro, Preston and Ridgely. Funds have been utilized from the Community Development Block Grant program to undertake the preparation of a comprehensive plan for the proposed North

Caroline Regional Water and Wastewater Project. The service area includes the towns of Goldsboro, Henderson, Templeville, and Marydel and identified surrounding areas.

All four towns have serious health and environmental problems associated with failing onsite septic systems that do not provide treatment of the wastewater before it is discharged into the ground. Shallow wells are at risk of contamination. Goldsboro has been under a consent order issued by the Maryland Department of the Environment since August of 1996.

In Dorchester County, municipal water and sewer systems are available to the residents of Cambridge, Church Creek, East New Market, Hurlock, Secretary and Vienna. In 1996, the Town of Vienna undertook a \$4.5 million upgrade and rehabilitation of its water and sewer system. During this renovation, the low-income minority community of West Vienna was provided with water and sewer service in order to eliminate the problem of failing septic systems contaminating shallow wells. The Town of Secretary completed a total rehabilitation of its water system in 1996. Secretary has undertaken the correction of an infiltration/inflow problem. The Town of East New Market has also completed a major sewer upgrade, which allowed it to take in areas with problems with failing septic systems. The Cambridge sewage treatment plant has 53.4% of the entire region's capacity for waste water treatment and currently operates at less than 50% capacity. They are implementing modern ENR (Enhancement Nutrient Removal) technologies to maintain compliance with the latest state and federal water quality regulations and permits.

All municipalities have water and sewer systems in Talbot County. Easton Utilities manages and maintains the waste treatment system for the Town of Easton. They have a state of the art facility and will be making upgrades to the facility within the next 5 years to meet new Biological Nutrient Removal (BNR) requirements.

The unincorporated village of Tilghman has a wastewater treatment plant which is adequate to serve that community's needs. The water and sewer systems in St. Michael's are adequate to meet needs, although the systems are being upgraded at the present time to eliminate BNR. That sewer system has been extended to serve the communities of Royal Oak and Tunis Mills. Water and sewer systems in Trappe are at capacity. In planning for growth, it will be necessary to consider expanding that system. Developers who wish to build residential units in Trappe must provide their own water and sewer. The Town of Oxford has water and sewer systems adequate to serve needs.

Telecommunications

The Technology Development Corporation (TEDCO) of Maryland recently conducted an E-readiness assessment of the broadband services offered in the entire state of Maryland. The study identified that large areas of the Mid Shore Region were underserved by broad band services providers and the majority of residents and businesses access the internet via dial up services.

Easton Utilities, Comcast, Verizon and Delmarva Online are the major ISPs in the region. They offer DSL, cable modem and dialup to individual homes and businesses in most of our municipalities. Due to the limited user base and cost of infrastructure prices tend to be higher for these services than in

other areas of the state. However, we have been assured by the vendors that if a company wants to locate in the Mid Shore Region and needs high speed internet service, it can be provided.

The lack of affordable and accessible high speed internet service is a major barrier to diversifying the Eastern Shore economy. The MSRC together with the Lower Shore Tri-County Council, Upper Shore counties, TEDCO and DBED, have raised \$100,000 and hired a consultant to develop a master plan for high speed internet infrastructure that provides affordable broadband access for businesses in all nine counties. The feasibility study prepared by the Yankee Group verified there is a lack of affordable T1/businesses services on the shore. The wholesale cost for 1 mega byte of bandwidth for ISPs on the Shore is \$208. On the western shore ISPs pay approximately \$30 per mega byte and this allows them to deliver more affordable services. The Yankee Group recommended that a wireless back bone and last mile network are a viable solution to meet our growing broadband demands. Eventually a fiber backbone will be required to handle bandwidth demand on the eastern shore.

Media

Four newspapers serve the Mid Shore Region. Daily publication is provided by The Daily Banner in Cambridge with a circulation of 3,500; The Star Democrat in Easton with a circulation of 16,700; and, The Daily Times in Salisbury with a circulation of 24,000. The Dorchester Star-Cambridge is a weekly newspaper with a circulation of 12,400. The Times-Record – Caroline County has a weekly circulation of 4,200

There are four FM and two AM radio stations in the area. Television stations include WBOC -TV 16, a CBS affiliate in Salisbury and WMDT -TV 47, an ABC affiliate also located in Salisbury. WCPV Channel 28 is a Maryland Public Television station. Easton Channel 15 is a local station in Talbot County. Cable television is available in all towns.

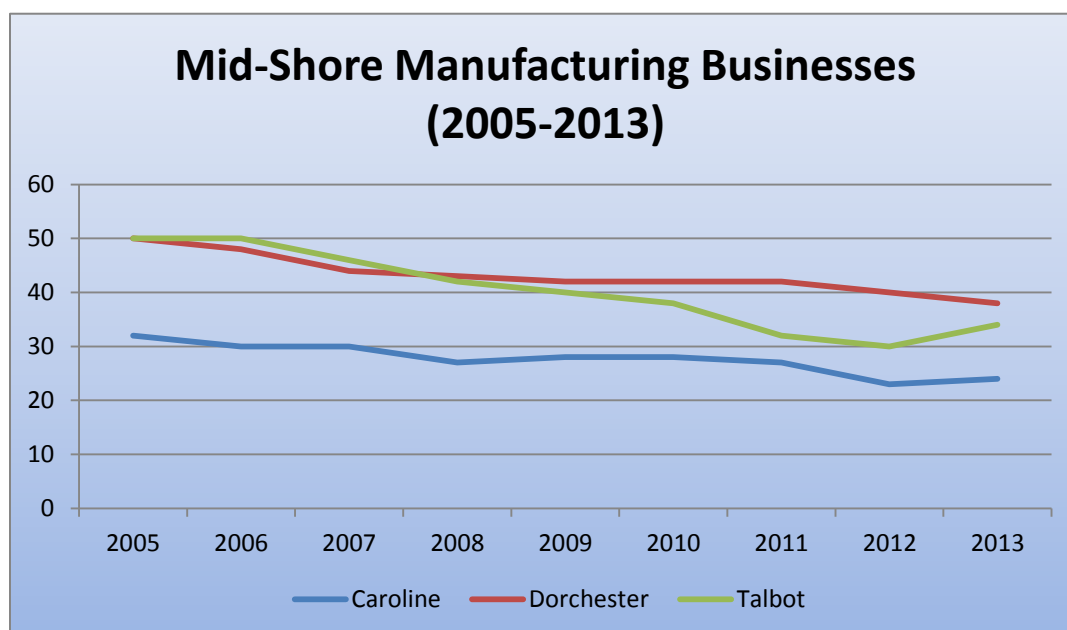
Electrical Distribution

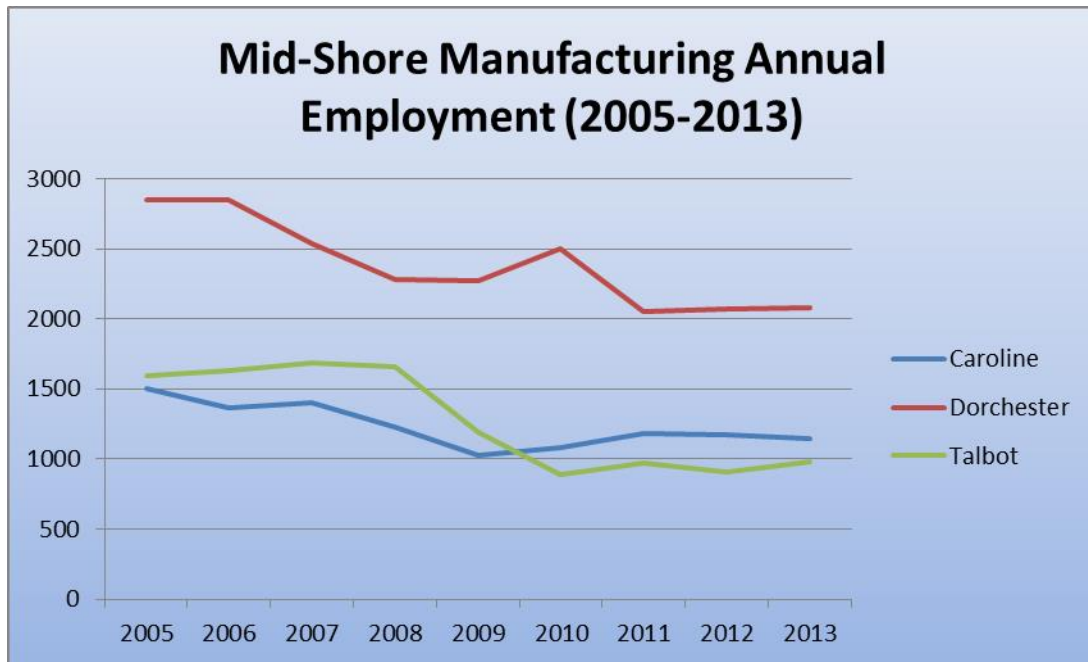
Electric service for the area is provided through Delmarva Power Delivery, Choptank Electric Cooperative, Incorporated, and the Easton Utilities Commission. The cost of energy in this region is competitively priced. Delmarva Power, for example, charges relatively lower rates compared to rates charged in other Mid-Atlantic States. This major supplier of electric utility is a full-member of the Pennsylvania, New Jersey and Maryland interconnection, which is the oldest power grid in the nation, with a service reliability exceeding 99.8 percent.

1.4 Major Industry Clusters

Major industry clusters have traditionally included agriculture, seafood harvesting and processing, manufacturing and tourism. While manufacturing jobs have shown an overall decline in the region for the last two years, manufacturing continues to support high paying wages and incomes in Dorchester, Talbot and Caroline Counties. Manufacturing represents approximately 11.8% of the workforce in the three county areas with Dorchester County reporting the highest percent of manufacturing in the state. Maryland Department of Labor License and Regulation (DLLR) indicate that 2002 demographics showed 20% of the jobs in Dorchester County were based in manufacturing with 11.9% in Caroline County and 6.6% in Talbot County. Manufacturing jobs are diversified in the Mid Shore area and represent many sectors. A concentration of industry sector activity can be found in the microelectronics and telecommunications, fabricated metal parts, wire mesh and wire molded products, food processing, boat building, plastics and the print industries.

The majority of growth for the Mid Shore Region in manufacturing is coming from the existing business base as employers seek to introduce new products, develop new markets and consolidate existing operations. The region is seeking to preserve its industrial zoned property with rail siding for manufacturing use while it expands and develops more infrastructure and manufacturing capacity. The Mid Shore Region currently supports industrial and technology parks in each of the major population centers but is witnessing a shortage of modern flexible manufacturing buildings. The Mid Shore Region seeks to further develop industrial and technology infrastructure for parks so that new facilities can be attracted to the area while existing manufacturing will be accommodated in their expansion efforts. The Mid Shore Region has been working collectively on marketing the region as the Environmental Peninsula to attract technology based manufacturing that can benefit from the federal and state laboratories located in the region and the environmentally sensitive surroundings. Industries such as Geospatial Information Systems (GIS), Mapping, Scientific Instrumentation, Software Development, Data Collection, Remote Sensing and Value Added Agribusiness opportunities are being explored as a core area for future development in the region.





Agriculture

Poultry remains the primary driver of the Eastern Shore's agricultural industry. In 1997, ninety nine percent of all broilers in Maryland were raised on the Eastern Shore. The estimated annual production value in the Mid Shore Region is approximately \$125M. Transporting feed and providing wood chips to poultry farmers energizes other important Eastern Shore industries, particularly forestry and railroads.

Recent trends indicate that farm size is growing, traditional commodities are produced, and full-time farmers sell to wholesale markets. Income from agriculture and seafood industries has been falling consistently in the past 30 years. Over 75 percent of farmers on the Shore are older than 44 years of age, describing a continuing trend of younger family members not remaining in the industry. In 2012, there were 658 farms in Caroline County as compared with 574 in 2007. For Dorchester County in 2012 there were 423 farms and in 2007 there were 424 farms. As of 2012 Talbot County had 312 farms, up from 305 in 2007. (*U.S. Department of Agriculture Census 2012*) Compounding the tendency of fewer viable small farms is the knowledge that more farmers are viewing their land as retirement income. By assisting farmers with the implementation of farmland easements, the Eastern Shore Land Conservancy is working to ensure adequate acreage remains in farming to maintain agriculture as a viable keystone industry.

Many farmers and organizations in the Region, such as the Agro-Ecology Institute, Chesapeake Fields, the Eastern Shore Land Conservancy, American Farmland Trust, University of Maryland and the Farm Bureau, are researching and testing new crops and value added products that can

capitalize on new market trends, the region's proximity to major urban centers, create new farming opportunities, and reinforce the foundation of ag economy.

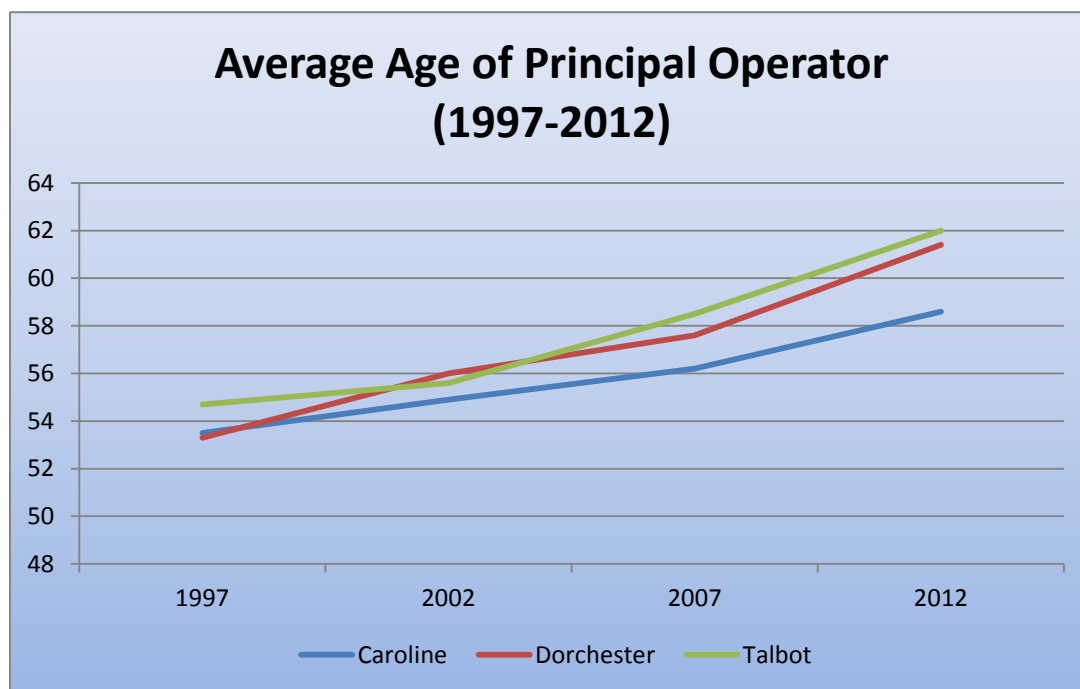
Despite the downward trends in the agriculture industry farming is one of the largest contributors to the Regional economy and has the potential to play a significant role in future economic growth and diversification.

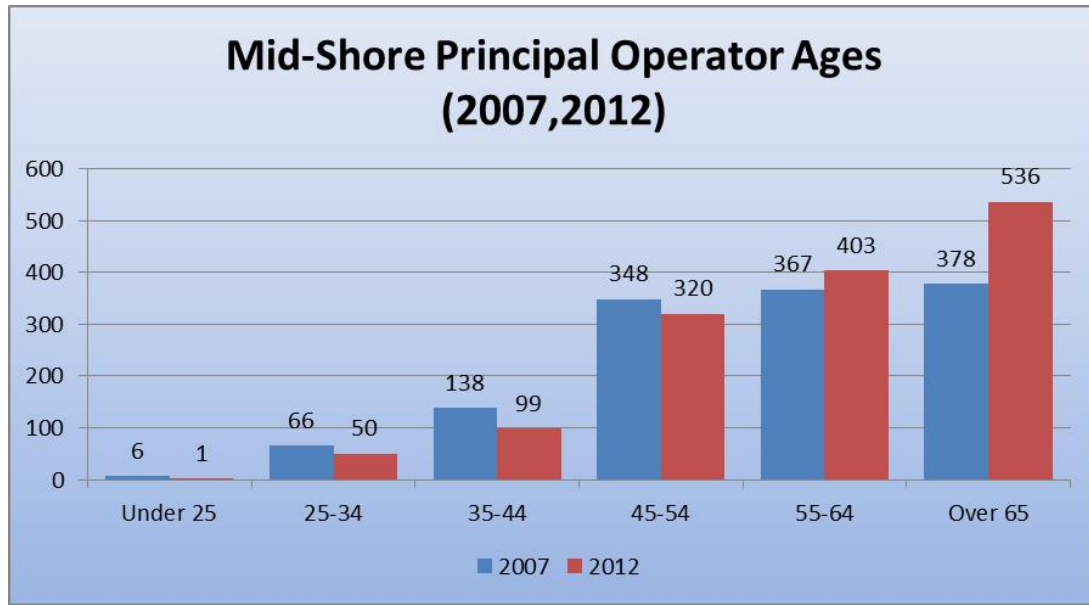
Note - Direct output is total industry production for a given year. It is equal to shipments plus net additions to inventory

Note - Value added impacts include proprietor's income, employee compensation, other property income and direct business taxes.

People directly employed by farming businesses in the Mid Shore Region:
(Data Source: 2012 Census of Agriculture)

▪ Caroline	658 Farms / 813 Workers
▪ Dorchester	423 Farms / 480 Workers
▪ Talbot	328 Farms / 304 Workers





Tourism

Heritage tourism has become an important focus in the Mid-Shore Region, due primarily to the many historic villages and cultural attractions, which speak of the area's unique tradition. The network of bays, sounds, rivers and creeks provide a significant resource. There are a number of publicly accessible national, state and local parks in natural areas, which are being utilized as a resource in the tourism industry. Other regional tourism assets include facilities for boating, nationally renowned refuges, historic towns and villages, heritage areas, hiker/biker trails, hunting, fishing and trapping.

These assets were the catalyst for the development of a new Hyatt Resort located on the Choptank River in Cambridge. In addition, Dorchester County received certification of the Heart of the Chesapeake Country Heritage Area in July 2002. The program is supported by a public/private sector steering committee representing a cross section of the community that worked for six years on the project and fully supports the management plan and growth of this sector of the economy.

Talbot and Caroline County are part of the Upper Shore initiative to establish a five county heritage area strategy and believe that the growth of tourism holds great potential for the region. According to the Maryland Office of Tourism Development, total travel expenditures have risen dramatically in Talbot County from 22.7 Million dollars in 1980 to over 107 million in 2002. In 2012, Talbot County, tourism generated 3,946,045 million dollars in County tax receipts in 2010 and represented 52% of the total 3 counties sales tax revenue. From 2010 to 2012, sales tax revenues, for the Mid Shore region, decreased from \$6,248,730 to \$7,481,108.

Mid Shore Tourism Sales Tax Revenues (2014)

- Caroline County \$595,604
- Dorchester County \$3,797,226
- Talbot County \$5,246,767

Total Mid-Shore Tourism Sales Tax Revenues in 2014: \$9,639,597



Source: (<http://visitmaryland.org/AboutMDTourism/Documents/OTD%20FY%2714%20Annual%20Report.pdf>)

Total tourism tax revenue includes a portion of local taxes such as property tax, income tax, alcohol and sales tax generated by local tourism businesses in addition to hotel/motel and amusement taxes.

Seafood

Seafood harvesting and processing has historically been an anchor of the Dorchester and Talbot County economies. The seafood industry has declined in recent years as a result of the MSX and Dermo, diseases that have decimated the oyster population in the Chesapeake Bay. In addition, the blue crab population has declined due to over-harvesting and habitat degradation. There have been several legislative initiatives proposed in recent years that would limit crab harvests in an effort to increase the population. These proposals have met stiff resistance on the local and state level. Legislators and scientists agree that unless similar conservation efforts are imposed by our neighbors in Virginia, the blue crab populations will continue to decline.

Relationship of Economy to Regional and State Economy

A 1999 study completed by Icart and Demissie of the University of Maryland Eastern Shore studied the five Eastern Shore counties of Caroline, Dorchester, Wicomico, Worcester and Somerset. This study stated that, “these five lower Eastern Shore counties have experienced socio-economic problems that are far greater than other counties on the Eastern Shore. They have also exhibited slow growth and economic development. The main economic problems seen in these counties are low per capita income, high unemployment, high poverty rate, and declining employment in manufacturing industries resulting in a decline in employment earnings. It can be said that these counties face a far greater challenge than others in the region or state.” By comparison the rest of the state has seen steady growth and stability, due largely to the infrastructure of federal laboratories and research facilities, military base presence and key geographic locations for Mid-Atlantic distribution. The Eastern Shore must prepare its infrastructure so that it too can enjoy the same prosperity as the rest of the state.

1.5 Factors Affecting Economic Performance

State and Local Laws

In 1997, the Maryland General Assembly adopted several specific programs, which form the State's Smart Growth initiatives. Collectively, these initiatives aim to direct State resources to revitalize older developed areas, preserve some of Maryland's valuable resource and open space lands, and discourage the continuation of sprawling development into our rural areas. The Smart Growth legislation allows the State to direct its programs and funding to support locally-designated growth areas and protect rural areas.

The effect of this legislation has been to severely limit the amount of financial resources available to areas outside of municipalities and designated growth areas. This has had both beneficial and negative results for the Mid-Shore Region. It has worked to preserve one of the Region's greatest assets, the many acres of undeveloped land, which are an attraction for new residents and tourists. However, many citizens believe the program has reduced growth in this region by not permitting state financial mechanisms to be made available for projects located outside of municipalities and designated growth areas.

The Maryland Enterprise Zone Program has proven effective in drawing industry to this area. Under this program, companies receive forgiveness for any increase in property taxes for the first five years of operation for an expansion or new enterprise. Reduced taxes on expansion or new enterprise are paid during the following five years. This is in addition to tax credits for new employment. Dorchester County contains two enterprise zone areas, the Chesapeake Industrial Park in Cambridge and the Hurlock Industrial Park. The Chesapeake Industrial Park contains 47 acres and provides facilities for light manufacturing and office space enterprises to warehousing and distribution facilities. All sites range from five to nine acres and are fully equipped with water, sewer and utilities. The Hurlock Industrial Park includes poultry operations, food processors, display furniture manufacturers, and trucking and warehousing companies.

The Chesapeake Bay Critical Areas legislation has also had a significant impact on local industry due to the prevalence of waterways in the region. This legislation limits development within 1,000 feet of certain waterways.

One Maryland Program

The One Maryland program was enacted in 1999 so that all Maryland counties will share in the state's economic development success. The One Maryland Tax Credit Program provides two special tax credits to businesses that initiate major investment projects in Maryland's most economically distressed jurisdictions. The One Maryland Project Tax Credit can be as much as \$5 million and the One Maryland Start-Up Tax Credit can be as much as \$500,000.

Caroline County and Dorchester County have been designated as One Maryland Jurisdictions in the Mid Shore Region. As a result they are also eligible for grants from the Smart Growth Economic Development Infrastructure Fund.

This fund promotes the creation of industrial parks and other needed infrastructure in qualified distressed counties through direct funding of projects identified in the local strategic plan for economic development. The eligible recipients include a local government and MEDCO.

- A qualified distressed county is defined as a county, including Baltimore City, with a local strategic economic development plan that has been approved by the Secretary. The jurisdiction must also have an unemployment rate, for the most recent 18 months, of at least 150 percent of the State's unemployment rate for the same period; and an average per capita personal income, for the most recent 24 months, at or below 67 percent of the State's per capita income for the same period.
- The site must be located in a Priority Funding Area.
- The use of funds include acquisition and development of land for industrial sites, development of water and sewer lines, construction of shell buildings and other infrastructure projects.

The budget for the Smart Growth Fund is determined annually by the Governor. For the past 3 years the annual appropriation was \$10M.

Financial Resources

There are a number of financial resources available to the region through various state and federal programs. Federal agencies which could be utilized include the U.S. Economic Development Administration, the USDA Rural Development Administration, and the Small Business Administration. The Rural Development Administration offers funds through its Rural Business Enterprise Grant program to create revolving loan funds to assist small and emerging businesses. This is in addition to RDA's direct loan program and the guaranteed program accessible to individual business owners. Programs available through the State Department of Business and Economic Development include the following: the Maryland Industrial Development Financing Authority, the Maryland Energy Financing Administration, the Maryland Industrial Land Act, the Community Development Block Grant Program, the Maryland Industrial and Commercial Redevelopment Fund, programs under the Maryland Small Business Development Financing Authority, and the Maryland Economic Adjustment Fund.

Maryland Economic Development Assistance Authority and Fund (MEDAAF)

There are five financing capabilities offered through this incentive program, with assistance being provided to the business community and political jurisdictions. To qualify for assistance from MEDAAF, applicants are restricted to businesses located within a priority funding area and an eligible industry sector. With a few exceptions, assistance cannot exceed 70 percent of the total project costs

unless the recipient is the Maryland Economic Development Corp. (MEDCO), which can request 100 percent assistance.

The specific capabilities are:

Significant Strategic Economic Development Opportunities - A project that provides eligible industries with a significant economic development opportunity on a statewide or regional level.

- Assistance is provided to a business or MEDCO in the form of a loan.
- Maximum assistance cannot exceed the lesser of \$10 million or 20 percent of the current fund balance.

Local Economic Development Opportunity - A business that provides a valuable economic development opportunity to the jurisdiction in which the business is located and is a priority for the governing body of that jurisdiction.

- The local jurisdiction must sponsor the business and must participate in the form of either a guarantee, a direct loan or a grant in an amount equal to at least 10 percent of the State's financial assistance.
- Loans may be up to \$5 million, while conditional loans and grants may be up to \$2 million.

Direct Assistance to local jurisdictions or MEDCO - The Department may provide financial assistance to a local jurisdiction for local economic development needs.

- The total amount of assistance cannot exceed \$3 million.
- The use of funds includes land acquisition, infrastructure improvements, acquisition of fixed assets, leasehold improvements, up to 70 percent of the cost of a feasibility study and up to 50 percent of the cost of preparing a local economic development plan.

Regional or local revolving loan fund - Grants to local jurisdictions to help capitalize local revolving loan funds.

- Eligible applicants include a county or regional economic development agency, whether public or private. A jurisdiction may transfer all, or a portion of its allocation to a regional revolving loan fund.
- Each jurisdiction may receive a grant of \$250,000 annually with a \$500,000 cap through June 30, 2003. DBED may not make grants totaling more than \$2 million per fiscal year.
- To qualify for a grant, the local government must provide a matching grant of funds to the local revolving loan fund.

Special purposes loan - This loan targets specific funding initiatives that are deemed critical to the State's economic health and development.

- The specific program determines the level and type of financial assistance provided.

- The special purpose initiatives required by the Legislature include the Brownfield Revitalization Incentive, Seafood and Aquaculture, Animal Waste and Day Care Centers programs.

Maryland Industrial Development Financing Authority (MIDFA)

Encourages private sector financing in economic development projects through the use of insurance, the issuance of tax-exempt and taxable revenue bonds and linked deposits. The use of insurance reduces the lender's risk in the project to an acceptable level. The project must be in a Priority Funding Area.

- Insurance - insures loans made by financial institutions up to 80 percent and not to exceed \$2.5 million.
- Insurance of Bonds - insures bonds up to 100 percent and not to exceed \$7.5 million.
- Taxable Bond Financing - provides access to long-term capital markets at generally favorable interest rates.
- Tax-Exempt Bond Financing - as restricted by Federal tax law, can finance 501 c (3) non-profit organizations and manufacturing facilities.
- Linked deposits - used to stimulate the economic and employment growth of small businesses located in rural areas with a qualifying high unemployment rate. To participate, lenders must agree to provide an eligible business with a loan at below market rates in exchange for having a certificate of deposit of equal value placed with their institution.

Maryland Small Business Development Financing Authority (MSBDF)

Provides financing for small businesses and those owned by socially and economically disadvantaged persons.

- Contract Financing Program - loan guarantees and direct working capital and equipment loans too socially or economically disadvantaged businesses that have been awarded contracts mainly funded by government agencies and/or public utilities.
- Equity Participation Investment Program - direct loans, equity investments and loan guarantees to socially or economically disadvantaged-owned businesses in franchising, in technology-based industries, and for the acquisition of profitable businesses.
- Long-Term Guaranty Program - provides loan guarantees and interest rate subsidies.
- Surety Bonding Program - assists small contractors in obtaining bonding for primarily funded government or public utility contracts that require bid, performance and payment bonds.

Community Development Block Grant Program-Economic Development (CDBG-ED)

Provides funding to commercial and industrial economic development projects. Program funds are dispersed to a local jurisdiction in the form of a conditional grant and are then used for public improvements or loaned to a business. Funding ranges from \$200,000 to \$1,000,000.

- Project must create employment for individuals with low to moderate income in non-urban areas of the State.
- The political subdivision may be liable if the project fails.
- The use of funds is fairly broad and includes the acquisition of fixed assets and infrastructure and feasibility studies.

Maryland Economic Adjustment Fund (MEAF)

This Fund assists business entities in the State with the modernization of manufacturing operations, the development of commercial applications for technology and exploring and entering new markets. The program is administered in accordance with the guideline imposed by the Federal Government's Economic Development Act (EDA)

- Applicants must demonstrate credit worthiness, ability to repay the obligation and inability to obtain financing on affordable terms through normal lending channels.
- The maximum amount of the loan to any one borrower is \$500,000.
- State designated locations eligible are Baltimore City and Baltimore, Howard, Anne Arundel, Harford, Queen Anne's, Somerset, Worcester, Dorchester, Allegany and Washington counties.
- A loan may not be used to relocate jobs from one commuting area to another

The Rural Development Center at the University of Maryland Eastern Shore operates various programs that are used to attract new businesses. Funds available through this center originate through the U.S. Department of Defense Conversion Program, the Economic Development Administration, and the U.S.D.A. The Center often provides one half of the cost of a number of studies impacting local economic development.

Tax credits offered to various businesses throughout the State include the corporate income tax credit, the employment opportunity credit, the job creation tax credit, and real property tax credit. The corporate income tax credit pertains to wages paid to qualified employees in enterprise zones. In addition, employers can earn up to \$5,100.00 in Maryland State tax credits by hiring eligible workers in any location.

Eligible workers are Maryland residents who, for at least six months, were recipients of benefits through the Aid to Families with Dependent Children Program. Certain companies creating sixty new jobs over a twenty-four month period and paying at least 150% of federal minimum wage are eligible to receive \$1,000.00 in state corporate income tax credit for each employee hired. The credit increases to \$1500.00 if the firm is located in an Enterprise Zone area. There is a seven-year 100% personal property tax credit on manufacturing and pollution control equipment and a full exemption on research and development equipment and manufacturing inventory.

There are subsidized, customized training programs for business and industry for upgrading workers' skills. Organizational assessments of business management and consulting and training services are available. The local job service office will screen employment candidates at no charge to employers.

Maryland's corporate income tax rate has held steady at 7% for the past several years. The tax burden on business as a percentage of total tax revenue is lower in Maryland than any other state.

Dorchester and Caroline Counties are two of the seven jurisdictions in the State to qualify for the One Maryland Program. Under this program, a certified business can claim a tax credit against state income, insurance premium, and financial institution franchise tax. Start-up tax credits are based upon a business' cost to furnish and equip a new location.

Talbot County has created an aggressive real property tax credit program designed to attract environmentally friendly high tech businesses. The program, administered by the Talbot County Office of Economic Development, has a tiered incentive program based on the following job creation and investment criteria:

LEVEL 1: The creation of 50 jobs at twice the Federal Minimum Wage rate and at least \$2 million of increase in assessable value. Job creation requirements must be fulfilled no later than 24 months after the completion of construction. The County Council may issue a schedule identifying the number of jobs to be created per year.

LEVEL 2: The creation of 100 jobs at twice the Federal Minimum Wage rate and at least \$4 million of increase in assessable value. Job creation requirements must be fulfilled no later than 36 months after the completion of construction. The County Council may issue a schedule identifying the number of jobs to be created per year.

LEVEL 3: The creation of 150 jobs at twice the Federal Minimum Wage rate and at least \$6 million of increase in assessable value. Job creation requirements must be fulfilled no later than 60 months after the completion of construction. The County Council may issue a schedule identifying the number of jobs to be created per year.

Transportation Costs

Transportation costs are relatively low due to the region's accessibility to most major markets in the Philadelphia/Norfolk Corridor and provide a competitive advantage for attracting new businesses.

Energy Costs

Electric energy is available through Conectiv Energy, Choptank Electric, and the Easton Utilities Commission. Natural gas is supplied by Easton Utilities Commission and Chesapeake Utilities. The average range for 150 KW load is \$0.858 per Kwh, the average range for 300 KW load is \$0.0852 per Kwh. these rates could be expected for industrial and manufacturing users.

Note: This averages out to be \$3,000 to \$5,000 more per year than on the Western Shore and puts our companies at a slight disadvantage.

Business, Personal and Property Taxes

In regard to the State corporate income tax, 7 percent is charged on net income attributable to business transacted within the State of Maryland. There is no county tax on the State corporate income tax. The maximum State personal income tax is set at 4.75 percent. In Maryland, six percent taxes are charged on tangible personal property sold at retail. This tax does not apply to resale, nor does it apply to manufacturers' purchase of raw materials or manufacturing machinery or equipment. Tax exceptions to R&D firms include purchases of materials and equipment used in R&D and testing of finished products and purchases of computer programs for reproduction or incorporation into another computer program for resale.

Maryland Tax Rates

	Local Income Tax Rate 2014	Local Income Tax Rate 2015	Real Property Tax FY (2014-2015)*	Business Owned Personal Property Tax FY (2014-2015)*
Caroline County	2.73%	2.73%	.96	2.4
Dorchester County	2.62%	2.62%	.976	2.44
Talbot County	2.4%	2.4%	.527	1.32

* All rates shown are per \$100 of assessment

Source: http://taxes.marylandtaxes.com/Individual_Taxes/Individual_Tax_Types/Income_Tax/Tax_Information/Tax_Rates/Local_and_County_Tax_Rates.shtml

Major tax credits available in the region include the enterprise zone, job creation tax credits, and research and development tax credits. In addition, One Maryland tax credits are also available in Dorchester and Caroline Counties. **See Appendix B for a list of tax credits.**

Bonding Capacity

For 2014 in Caroline County bond ratings were set at "A" from Standard & Poor's and an "A3" rating from Moody's Investors Service. There is no cap on the amount the county may borrow. This is dictated in a practical way through repayment ability.

For Dorchester County, bond ratings were set at "A" for S&P and an "A2" from Moody's. There is no cap on the County's bonding. The available bonding capacity is technically unlimited, although as a practical matter, affordability of repayment for various loans is a governing issue. Dorchester is one of the few jurisdictions in the State which sets no cap on its bonding.

In Talbot County, bond ratings are set by Moody's at "Aa2". The Fitch rating is AAA for 2014.

(Source: MD Department of Business and Economic Development, <http://business.maryland.gov/media/document-library>)

Land Use Patterns

In Caroline County, the largest proportion of land has traditionally been agricultural and only a small percentage of farmland is included in agricultural preservation lands. Land for single-family residential development has been and will continue to be taken from the available agricultural lands. Little changes in commercial or industrial land use areas are expected. Current zoning for rural areas allows one dwelling per 20 acres, As a result of Smart Growth policies, and a stronger focus on land preservation, it is anticipated that low density growth can be slowed, but not stopped. The planning department has noted that as more growth continues in the state and region, more land will be lost to development of the expensive resource lands.

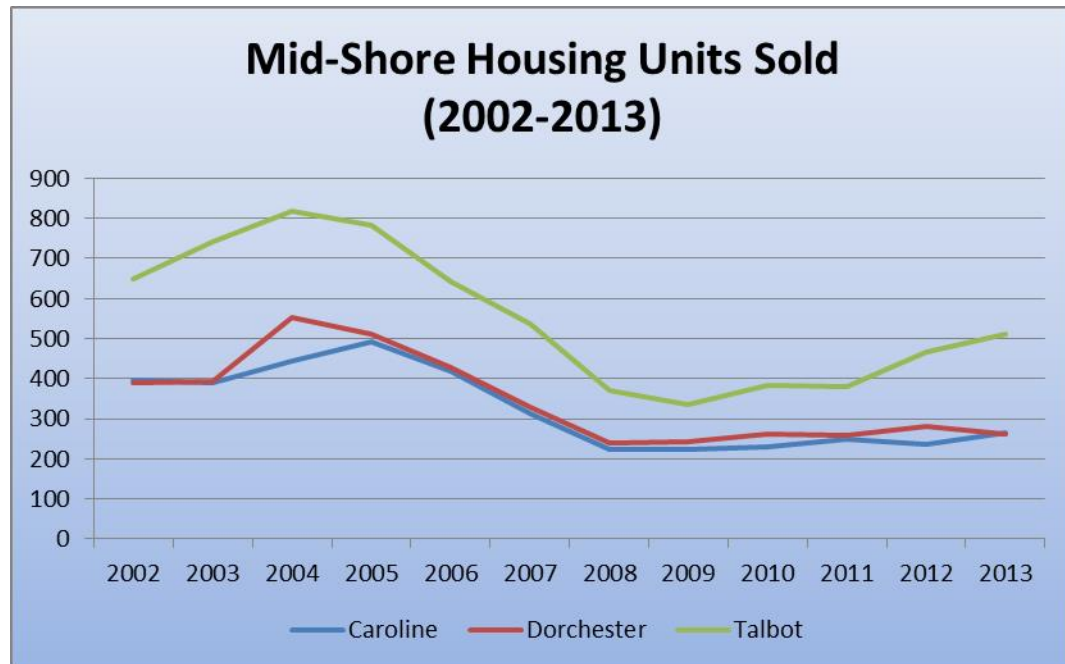
In Dorchester County, 90 percent of the land is zoned agricultural and resource conservation area with the remaining 10 percent residential and commercial. The County continues to experience scattered development. The County's comprehensive plan states that new growth is targeted to designated growth areas, particularly the Route 50 and Route 16 corridor. Significant opportunities exist for expansion of existing industrial parks.

Most of the growth in Talbot County is in and around the towns. The population of Easton represents one-third of the County's population and the population in incorporated towns represents approximately 50 percent of the County's population. Thirty-percent of its land mass is in the Critical area, which is one of the highest proportions of any county in the State. In the Critical Area, only one housing unit per 20 acres may be constructed. Fifty percent of the land in the County is agricultural. Therefore, 80 to 85 percent of the County is in low density development. The balance of the County consists of rural communities and one small cluster development. The County is beginning to see evidence of a minimal amount of sprawl with increasing development around towns.

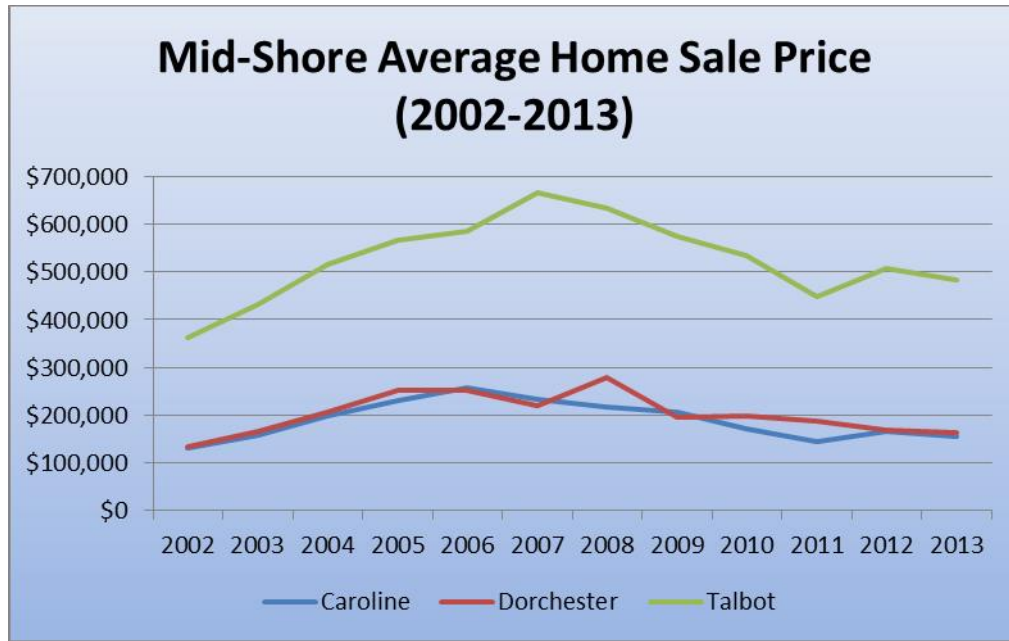
1.6 Factors Indirectly Affecting Economic Performance

Housing Characteristics for the Region

	Housing Units Sold, 2012	Housing Units Sold, 2013	Home Ownership Rate 2008-2012
Caroline County	236	264	72.2%
Dorchester County	282	262	68.3%
Talbot County	468	512	73.8%
State of Maryland	56,530	63,556	68.1%



Source: Maryland Association of Realtors



Source: Maryland Association of Realtors

Caroline County

The number of households in Caroline County in 1970 totaled 6,360. As of the 2010 Census, this figure had reached 13,482 households, a 112 percent increase. The number of households is expected to substantially rise in Caroline County over the next 20 years, indicating an additional 45 percent growth in households. From 1985 until 2001, the construction of new homes in Caroline County increased by 30 percent and the number of major subdivisions increased by 79 percent. The average household size for Caroline County has decreased over the last 20 years. From the years 1970 until 2010, average household sizes for Caroline County decreased by a little over 12 percent.

There is a lack of Section 8 Rental Assistance housing in Caroline County. At the present time, only about one-third of the demand has been filled.

Dorchester County

Housing in Dorchester County, even though relatively low-priced, is not necessarily more affordable due to the relatively low income of county residents. Compared to the surrounding counties, the housing stock is older, fewer homes are owner-occupied, more households are low to moderate income, and more housing lacks complete plumbing. The lack of move-up housing in the County is seen as a deterrent to attracting business. Dorchester County has a relatively weak housing market linked to the weak economy. In addition, the disproportionate amount of the County's elderly population dictates the need for more modest priced homes for the persons in this age category. County-wide, just over 31.5 percent of housing was renter occupied in 2010 with a renter rate for incorporated towns nearing 50 percent. In 2010, 18.3 percent of the County's housing units were vacant. This is a much higher percentage than for adjoining counties. Problems associated with Dorchester County housing include the following:

- High housing costs compared to income
- Significant number of homes in poor physical condition
- Owner occupancy level for housing units in Cambridge at less than 50 percent
- Market demand for rural subdivisions coupled with disincentives for housing developments in towns are resulting in increasing housing development in the unincorporated area of the County

Talbot County

The housing issues in Talbot County are complex primarily because of the extreme disparity of income levels in the County. Limited entrepreneurial and job opportunities keep the moderate income wage earners from homeownership. Habitat for Humanities and new Easton Town Council initiatives now require developers to address low to moderate income, affordable homeownership opportunities as part of any new housing development strategy. The net effect will not be known for several years. There is no shortage of high end housing options. Middle income affordable housing remains a county wide issue.

Talbot County had the fourth smallest number of persons per household in the State in 2010 (2.31) however 40% of public housing remains inexplicably vacant. Rental property is exorbitant and often requires unrelated families to share space. Apartments represent 85% of the rental property. Failure of code enforcement allows rentals to remain in a state of disrepair. Much of the substandard housing is in small rural pockets.

The Talbot County Housing Roundtable, a coalition of organizations and individuals formed to assess and recommend affordable housing policy for Talbot County, and the local and county councils are exploring avenues to significantly address quality of life issues through better housing options. On the drawing board are zoning and design standards that increase the mix of uses and housing types; mandated moderately priced dwellings as part of all new developments; employer- assisted housing, creation of housing trust funds solely to build affordable homes in low, moderate and middle income brackets and creating nonprofit, semi-public developers and other financiers of affordable housing.

A study of housing conditions is under way. The findings will provide the impetus for obtaining funds through which to address the housing problems in the County.

Educational Facilities

Students in the area have access to several institutions of higher education. Chesapeake College, with its main campus in Queen Anne's County, is a comprehensive two-year community college, offering business and industrial programs, customized training and support services. Course work is offered in Dorchester County at the Chesapeake College Cambridge Center and in Easton at the Center for Allied Health.

In 2002, Chesapeake College opened a \$9.6 million, 48,000 square foot Learning Resource Center/Library and in addition will open a 28,000 square foot, \$6 million Higher Education Center that will offer bachelor's and graduate course work on the campus. The higher Education Center is a partnership between Chesapeake College, University of Maryland Eastern Shore, Washington College, and Salisbury University.

Chesapeake College makes use of a distance learning center over which it offers courses in conjunction with Salisbury University. Salisbury University is a four-year State University located in Salisbury offering bachelors and master's degrees in a wide variety of subjects. Wor-Wic Community College is a two-year liberal arts college located in Salisbury and Berlin, Maryland.

The University of Maryland Eastern Shore, located in Princess Anne, is a Historically Black 1890 Land Grant Institution and is a member of the University of Maryland System offering bachelor's degrees in over 30 majors, as well as pre-professional programs in dentistry, engineering, law, medicine and social work.

The University of Maryland Center for Environmental Science near Cambridge offers graduate student programs, student and teacher environmental education, and summer internships. Students in the area are also within commuting distance of Washington College in Chestertown, as well as Delaware Technical and Community College in Georgetown, Delaware.

The School of Technology in Cambridge offers courses in auto mechanics, auto body repair, carpentry, electricity, horticulture, health services, food services, air conditioning and refrigeration, diesel and marine mechanics, welding and masonry.

Public Safety

Caroline

According to the Maryland State Police UCR Crime Index Report, crime in Caroline County was down by 19.77 percent in 2013 from its level in 1999. According to the Governor's Office of Crime

Control and Prevention in 2013, the last 3 years saw a reduction in crime in Caroline County in violent crime by 15.22%. *Source: Governor's Office of Crime Control and Prevention*

In Caroline County, municipal police departments exist in Denton, Federalsburg, Preston, Ridgely and Greensboro. The County Sheriff's Department is involved in a number of creative community policing initiatives. There are at present 17 Neighborhood Watches with an additional Neighborhood Watch being set up. In addition, a Citizens' Police Academy is in operation in the County, and is targeted primarily to senior citizens, although not limited to seniors. The purpose of the Citizens' Police Academy is to teach citizens safe habits and how to cooperate with the police in ensuring that their lives are unaffected by crime. In addition, the Sheriff's Department operates a program called Reality, which is similar to the D.A.R.E. program in teaching drug and alcohol resistance. Teen Court and TRIAD have also been implemented by the Caroline County Sheriff's Department.

Dorchester

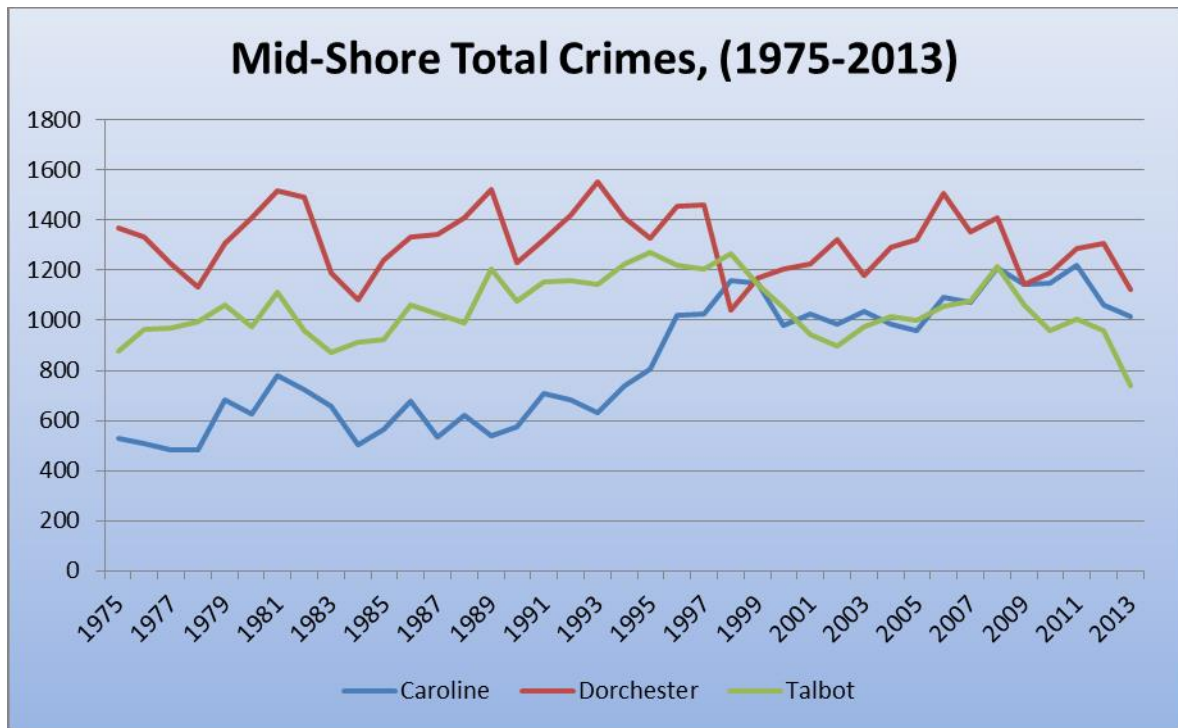
Violent crime was down overall by 12.54 percent for Dorchester County in 2013 as compared to 1999. In the 3 years preceding 2012, Dorchester County saw a reduction in crime in total crime of 11.98 percent and a reduction in property crime of 14.3 percent. Additionally from 2008-2013, breaking and entering decreased by 54.15 percent and larceny/thefts decreased by 2.32 percent. *Source: (Governor's Office of Crime Control and Prevention, 2014)*

The Dorchester County Sheriff's Department also operates a number of communities policing initiatives, including neighborhood watch programs. The City of Cambridge has received funding under the State of Maryland Hot Spots program. The Town of Hurlock has undertaken a number of activities in recent years to enhance its capability to provide law enforcement in the Town. This includes computerization of its operations, rehabilitation of a building to serve as its new headquarters, increase in staffing, and the purchase of laptop computers. That Department offers a number of community policing functions as well, including D.A.R.E., foot and bike patrol, and Neighborhood Watch. The Sheriff's Department and the Cambridge and Hurlock Police Departments are the only law enforcement agencies in the County with the exception of the Maryland State Police.

Talbot County

The Talbot County Sheriff's Department experienced a 44.25 percent decrease in violent crime for the period of 1999 to 2013. In the 3 years preceding 2012, Talbot County saw a decrease in violent crime of 14.37 percent *Source: (Governor's Office of Crime Control and Prevention 2014).*

In Talbot County, municipal forces exist in Easton, St. Michael's and Oxford. The Sheriff's Department is active in the full-range of community policing initiatives including D.A.R.E., Triad, traffic safety grants and M.A.D.D. Talbot Partnership. The major problems in the Talbot County area in terms of law enforcement are drug-related, although there has been an increase in the number of domestic violence cases.



Mid-Shore Crime Rate 2013

**Per 100,000 people*

- Caroline County 3101.2
- Dorchester County 3437.9
- Talbot County 1926.6

Source: Governor's Office of Crime Control & Prevention 2014 / Central Records Division, MD State Police

1.7 Health Services

Residents of the region have access to a responsive and progressive system of healthcare known as Shore Health System. The system has more than 150 board-certified physicians representing dozens of major medical specialties. The system has been evolving, maturing and expanding to keep pace with technological advances to assure that the region continues to have access to high quality cost effective medical care. The corner stone of the system is Dorchester General Hospital in Cambridge with 65 beds and The Memorial Hospital in Easton with 163 beds. The system includes the following Clinical Centers of Excellence: The Regional Cancer Center; Joint Replacement Center; Cardio-Pulmonary Fitness and Wellness; Shore Regional Breast Center; Emergency and Critical Care Services; Pain and Palliative Care Center; Rehabilitation Services; Digestive Health Services; Imaging Services; Shore Behavioral Health Services; Center for Integrative Medicine; Home Care and Hospice; Women's Cardiology; Regional Sleep Disorders Center; The Birthing Center; and Cardiac Catheterization Lab. Outside of the Region residents have access to other sub-specialty care services provided by Johns Hopkins University, the National Institutes of Health, the University of Maryland Medical System, and Peninsula Regional Medical Center.

1.8 Recreational, Cultural and Historical Facilities

Historic

Historic resources in the Region have been well preserved due to a relatively low level of development and the interest of a number of historic groups in the area in preserving these historic resources.

Caroline County has a wide range of historic resources. Towns such as Denton and Federalsburg have National Register Historic Districts. Heritage-tourism facilities include the Museum of Rural Life as well as the Old Harford Town Maritime Museum. Buildings such as the James Webb Log House are being restored for public use as components of a countrywide, heritage-tourism program. The Choptank and Tuckahoe Rivers Water Trail features the history of two of the three rivers in the County. The Underground Railroad Trail of the State of Maryland traverses the County and highlights the many local connections with Harriet Tubman and Frederick Douglass.

Dorchester County is famous as the birthplace of Harriet Tubman, of Underground Railroad fame. A museum in honor of Ms. Tubman is located in Cambridge. The Town of East New Market is designated as an historic district and is listed on the National Register of Historic Places. The Town of Vienna was a thriving 18th century port. John Smith first landed there in 1608. Besides being a port for international trade, the town was a busy stopover for those traveling by land. Many of the historic and environmental resources of Vienna have survived relatively untouched over the years and the Town retains an 18th century character. The Maryland Historic Trust has identified 16 historic structures and sites and included them in its site inventory.

In Talbot County, the Towns of Oxford, St. Michael's and Easton provide a number of historic resources for visitors. Oxford is one of the oldest towns in Maryland and marks the year 1638 as its official founding. Among the historic resources in Oxford are the Robert Morris Inn (c. 1710), Grapevine House (c. 1798), Barnaby House (c. 1700's), Oxford Custom House, and the Tench Tilghman Monument. The Oxford Museum, founded in 1964, houses a collection of relics and memorabilia from Oxford's past. St. Michael's is famous for the role its residents played in thwarting an attack by the British in the War of 1812. There are any number of historic structures standing in St. Michael's, including the Amelia Welby House (c. 1700), the Cottage (c. 1840), the Olde Inn (c. 1870), the Bruff Mansfield House (c. 1798) and the Hooper Straits Lighthouse (c. 1879). The Town of Easton dates to approximately 1682. In 1788, Easton was designated the Talbot county seat, as well as the meeting place of the Maryland General Court. Easton features a wealth of historical buildings. Historic resources in Easton include:

- Academy Art Museum, located in a renovated 1820's schoolhouse
- Historic Avalon Theater, built in 1921
- Christ Church, built 1840-1844
- Talbot County Courthouse
- Third Haven Friends Meeting House built in 1682, which is the oldest religious building still in use in the United States and the earliest dated building in Maryland.

Cultural and Recreational Facilities

The wide variety of recreational and cultural attractions is one of the reasons why the area attracts a large number of visitors and new residents from the metropolitan areas of Baltimore and Washington, D.C.

Caroline County

Caroline County's Tuckahoe State Park near Hillsboro provides a 4,501 acre setting for hiking, camping, canoeing, hunting, tennis, golf and fishing. Martinak State Park, a 99- acre park near Denton features camping, fishing, boating and hunting along the Choptank River. Holiday Park near Greensboro has camping, swimming, hiking trails, tennis and shuffleboard courts. Lake Bonnie near Goldsboro offers camping, swimming, fishing and boat rentals. Adkins Arboretum, managed by the Maryland Department of Natural Resources, is a well-attended attraction which draws visitors from throughout the region.

Municipal parks in seven towns all offer field sports. The county-owned marina at Choptank has a boat ramp and 70 slips. There is a publicly-owned marina at Federalsburg with a boat ramp and 23 slips and public boat ramps at four locations in the County.

Dorchester County

In Dorchester County, there are four wildlife refuge areas including Taylor's Island, LeCompte, Blackwater National Wildlife Refuge, and Fishing Bay Wildlife Management Area. Blackwater draws nearly 500,000 visitors from all over the world each year, which serves as a major stopping point for waterfowl on their annual migrations. There are a number of attractions and museums in the area, including the following in Cambridge: Brannock Maritime Museum, Dorchester Heritage Museum, the Meredith House and Neild Museum and the Richardson Museum. Spocott Windmill, located six miles west of Cambridge on Route 343, is the only existing post windmill for grinding grain in Maryland.

Stanley Institute, also located in the Cambridge area, and referred to as Rock School, is one of Maryland's oldest schools organized and maintained by a black community. The Taylor's Island Museum showcases local and regional antiques and memorabilia. The Vienna Heritage Center is showcasing collections from a button factory on Elliott's Island, which was the last operating button factory in the United States.

Talbot County

Talbot County offers sailing, boating, swimming, fishing, water skiing, hunting, golf, and tennis. The Waterfowl Festival, held in the second full weekend in November each year, draws 20,000 people annually to Talbot County. Recreational facilities in Talbot include county and municipal parks, playgrounds, launching ramps for boaters, the YMCA, Talbot County Community and Recreation Center, and the Talbot County Agricultural Center.

The Chesapeake Bay Maritime Museum showcases the region's maritime heritage, attracting over 80,000 visitors per year.

Hog Neck Golf Course is rated among the top 25 public golf courses in the United States. The Easton Club is a public 18-hole championship course that opened in 1995. There are two private golf courses, Talbot Country Club and Harbourtowne Golf Resort. The twenty-acre Wye Oak State Park offers many popular outdoor activities.

Be A Star Youth Sports and Cultural Arts Center and The Kwanzaa Foundation Festival held the second Saturday in December and a community Kwanzaa Celebration held generally December 27 (the second official day of the Kwanzaa Holiday).

Environmental Factors

Brownfield's

The term 'brownfield site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Jurisdictions that have brownfield sites are eligible for financial assistance from the EPA to cleanup and redevelop these areas so they can become job creation and economic assets in the community. While there are relatively few Brownfield's currently designated in the Mid Shore Region, the counties are aware of the steps required to support redevelopment.

Smart Growth

As previously mentioned, the Smart Growth legislation of 1997 requires that development stay within existing growth areas. The following communities have been designated as smart growth jurisdictions. Within each jurisdiction there are also designated Smart Growth neighborhoods.

Caroline County—Denton, Federalsburg, Goldsboro, Greensboro, Henderson, Hillsboro, Marydel, Ridgely, Templeville, West Denton, and Preston

Dorchester County—Cambridge, East New Market, Secretary, Hurlock, and Vienna

Talbot County—Easton, Oxford, St. Michaels, Queen Anne, and Trappe

Flood Plains

Because of the limited size of watersheds, wide-stream beds and general topography, flood elevations are relatively modest in Caroline County. When flooding does occur, it is typically low in velocity and destructive potential. Much of this land is also wetland and otherwise unsuitable for development. In the unincorporated portions of Caroline County, there is relatively little existing development in the flood plain. Little future development in these areas is anticipated due to the general unsuitability of most of this land for development, as well as the County land-use restrictions now in effect. The only portion of the County with a substantial flooding problem is the Town of Federalsburg. About one-third of the community lies within the flood plain of the Marshy hope Creek,

including almost the entire downtown business district. In addition, a limited residential area in Greensboro is also located in the flood plain of the Choptank River.

Approximately 60 percent of Dorchester County lies within the 100-year flood plain. The vast majority of the flood plain area in the County is tidal flood plain areas susceptible to flooding by high tides, hurricane storms, and on-shore winds. As of 1990, according to the County's Comprehensive Plan, some 4,600 people, or 15 percent of the population, lived in the 100-year flood plain area. This is fewer than in 1980.

Floodplains in Talbot County are located primarily in the western portion of the county along the various necks and Chesapeake Bay shoreline. Small areas of floodplains are located further inland in association with perennial streams, and near southeast portion of the Choptank and Tuckahoe Rivers. Virtually all land west of Route 50 is in the 100-year floodplain. Construction is discouraged but permitted in Flood Zone A as long as code requirements are met.

Wetlands

Caroline County's topography and surface water patterns have created a considerable variety and quantity of wetlands. These occur as both tidal and non-tidal, marsh and forested. In all, there are 3,392 acres of wetlands in various categories. Tidal wetlands occur along all the tidal streams in Caroline County, but principally the Choptank River and Tuckahoe Creek and their major tributaries. In all, 23 different types of tidal wetlands are found in Caroline County. Wetlands in Caroline County face little potential threat from residential, commercial or industrial development. These sites are generally not suitable for development by virtue of their soils, foundation suitability, sewage, disposal suitability and flood potential. In addition, there is no significant development pressure for water access developments in Caroline County to further threaten tidal wetlands.

Dorchester County has extensive non-tidal wetlands. The County's approach to stream buffer protection outside the critical area will be to continue to assist property owners and developers to comply with current state law governing the protection of wetlands. Given Dorchester County's flat terrain, a 25-foot buffer from wetlands will adequately protect streams and wetlands.

Talbot County contains a significant amount of tidal and non-tidal wetlands located mostly near the shoreline, although some inland riparian wetlands do exist. As of 1997, 4,916 acres or approximately three percent of the County's 172,000 acre total are wetlands. The County has implemented a number of safeguards in order to prevent impact on wetlands. For tidal wetlands, a 100-foot setback is required, while a 25-foot setback is required for non-tidal wetlands. Over the past several years, a small amount of wetlands have been lost due to mitigation for development. A significant project, the St. Michael's bypass, was not constructed due to the fact that it would have impacted on wetlands on the area. This is the only major project in the County's recent history to have been adversely impacted by the presence of wetlands. Any wetlands that are part of a residential development are used for the most part to meet the open space requirement.

Air Quality

Air quality in the Region is generally considered to be good due to its rural nature and the lack of heavy industrial use. Light industrial operations have been concentrated in certain areas and thus do not contribute to degradation of the air quality.

State of the Regional Economy

The CEDS committee devoted considerable time defining and debating the strengths and weaknesses of the economy. They strongly believe this information is the foundation for creating a viable and effective economic development strategy.

Strengths and Weaknesses

Top three strengths/market advantages:

- Proximity to major markets (e.g. Washington, Baltimore, Philadelphia, NY)
- Quality Of Life based on our strong agricultural base, rich cultural heritage and natural environment (new)
- Competitive costs for industrial sites

Other strengths identified include:

- Proximity to federal labs
- Competitive tax rates
- Existence of enterprise and HUB zones
- Multiple training opportunities available to employees in the region
- Natural resources and rural quality of life
- Cultural heritage resources
- Good general health care facilities
- Increased emphasis on economic development
- Competitive labor cost
- Abundant recreational opportunities
- Protected environmental/natural resources
- Availability of Federal and State resources
- Availability of rail
- Water Capability for freight transport -New

Barriers/Disadvantages

Top six barriers/disadvantages:

1. Decreasing economic return in the farming, fishing, and forestry industries
2. Lack of higher paying local jobs resulting in the necessity for residents to commute outside of their home counties

3. Insufficient tax base and financial resources to support economic development and infrastructure improvements/expansion
4. Competition with other communities which may be able to offer better economic incentives
5. Lack of affordable housing
6. Inadequate water and waste water infrastructure.

Other barriers identified include:

- Lack of technology infrastructure (e.g. broadband backbone, telecommunications and regional GIS system)
- Limited supply of improved land and industrial parks
- Need for improved coordination of job training programs with employers
- Lack of diversified economy
- Substandard proficiency in technical and educational achievement
- Lack of higher paying local jobs resulting in the necessity for residents to commute outside of their home counties
- Shortage of available buildings for commercial and industrial enterprise
- Limited public transportation
- Environmentally sensitive areas and associated land use regulations
- Need for streamlined permit process
- Above average high school dropout rate

Growth Sectors and Clusters

The following are the targeted growth clusters in the Mid-Shore Region:

- agricultural science and technology,
- environmental science/research/testing labs
- specialty manufacturing,
- value-added food products
- renewable energy technology
- horticulture
- information technology
- health care
- tourism
- plastics
- aquaculture
- transportation
- government services
- high value forest products
- construction/trade
- agro-tourism

Forces Driving the Economy

- Lack of diversified/high value markets for farm products is the strongest economic force effecting agriculture in the region. Farmers are constantly looking for value added opportunities and markets for specialty crops.
- The absence of unified resource management along with the degradation of the Chesapeake Bay ecosystem and water quality has resulted in declining seafood harvests and adversely impacted the watermen, processors, wholesalers and retailers that have traditionally relied on these resources.
- A large number of new residents are coming from the Baltimore, Maryland and Washington, D.C. areas. Old waterfront towns are being gentrified, real estate has become more valuable, and the elderly and young people are being displaced because they can no longer afford to live here.
- The Region has traditionally relied on a strong manufacturing industry. NAFTA, market forces, and labor costs have contributed to the deterioration of manufacturing jobs on the entire Eastern Shore. As a result, the region's economy is transitioning towards the development of small specialty manufacturing and technology based businesses. Due to the severe economic distress in the region, local governments are eligible for assistance from more economic development programs than at any other time.
- Growth vs. No Growth is a hotly debated topic and is a driving force influencing land use policies. There is diversity among the counties regarding the path they are going to follow. Many job retention efforts underway address the needs of entry level workers however the goal for the region is to create higher paying technology based jobs that will provide employment opportunities for our children in the future.

External Trends and Forces

Opportunities:

- Eligibility for federal and state funding for infrastructure improvement and economic development
- Natural and historic assets which can be used to promote tourism.
- A central location providing easy access to major markets, such as Baltimore, Washington, D.C., Philadelphia, and New York City.
- Easy access to major medical centers in the metropolitan areas.
- Immigration of business owners and community leaders from other areas
- National scenic byways
- Local entrepreneurs
- Influx of retired business and community leaders coming into the area whom have technical expertise.
- Growing Hispanic and Latino population

Threats or challenges to the regional economy:

- Decline in stocks of seafood in the Chesapeake Bay
- Outward migration of manufacturing companies
- General decline in farmland acreage and family farms
- State laws limiting growth in areas outside of municipalities.
- State laws requiring biological nutrient removal from wastewater systems.
- Dependence on weather for tourism
- Relatively large percentage of land in flood plain and wetland areas.
- Uncontrolled growth in rural areas
- Stability of the poultry industry due to competitive markets and regulatory constraints
- Federal air standards
- Outward migration of processors
- Lack of adequate public transit funding for mobilizing workforce in the region
- Approaching issues regionally

Position in the National and Global Economy

The severe distress factors in the region have resulted in a relatively low position in the national and global economy. The Icart and Demissie study discussed the distress factors for a portion of the Eastern Shore as compared to the balance of the State of Maryland. This study states that, “When compared to other Counties in the State, the lower Eastern Shore also lags behind in economic development. Socio-economic problems include poverty, unemployment, low per capita income and declining employment in manufacturing industries resulting in a decline in employment earnings.”

Local elected officials are looking to build a new economy around our natural assets and create incentives to recruit technology based businesses to the region. The region has a very strong agriculture industry and has traditionally ranked high in value of sales for poultry and poultry products, soybeans, vegetables, sweet corn, melons, and corn for grain and wheat.

Partners for Economic Development

The following is a list of the agencies and organizations that are partners for economic development. We feel that this is a broad cross-section of interests that would be beneficial in promoting the Region’s economic interests.

Municipalities and County Governments:

- Economic development offices
- Public Works
- Departments of Social Services
- Tourism Departments
- Planning Departments
- Boards of Education

State Departments:

- Office of Planning
- Tourism Office
- Department of Labor, Licensing, and Regulation
- Department of Business and Economic Development
- Department of Housing and Community Development
- General Assembly
- Governor's Office
- Department of Agriculture
- Extension Service
- Department of Natural Resources

Federal:

- Economic Development Administration
- Rural Development Administration, U.S. Department of Agriculture
- Small Business Administration
- Department of Commerce
- Federal Highway Administration
- Environmental Protection Agency

Local and Private:

- Community Action Agencies
- Chambers of Commerce
- Rural Development Center, University of Maryland Eastern Shore
- Local Banks
- Local Management Boards
- Watermen's Associations
- Delmarva Community Services, Inc.
- Local Colleges and Universities
- Farm Bureau
- Foundations

Resources for Economic Development

All of the partners listed in the previous section are available to assist in the implementation of this CEDS. There is a good cross-section of interests represented among the partners and these groups cover the entire range of need as far as expertise.

The various grant and loan programs mentioned will be an essential source of financial assistance in carrying out the CEDS activities. Technical assistance and financial support will be accessed in order to realize goals. The region should utilize all available funds from the Economic Development Administration and Rural Development Administration, Maryland Department of Business and Economic Development and the Maryland Department of Housing & Community Development. The Rural Development Administration has a number of programs which can assist the region in developing its economic development program, including the Rural Business Enterprise Grant Program. That agency also offers assistance to individual entrepreneurs by ensuring loans made by commercial banking institutions.

The Maryland Department of Business and Economic Development offers programs such as the Community Development Block Grant Program, the Maryland Economic Development Assistance Authority, the Economic Development Opportunities Fund, One Maryland, the Maryland Industrial Development Financing Authority, the Maryland Small Business Development Financing Authority, the Maryland Economic Adjustment Fund, and the Maryland Competitive Advantage Financing Fund. The Rural Development Center at the University of Maryland Eastern Shore operates various grant programs which are intended as a catalyst to attract new businesses or retain existing businesses. Their funds include the U.S. Department of Defense Conversion Funds, U.S. Small Business Administration (SBA 504 and SBA 7A) and EDA funds. The Center has provided one-half of the costs of a number of studies impacting local economic development. There is a potential for cooperation with the region's banks by working in partnership with local revolving loan funds.

Tax credits offered by various state and local governments will also be essential in implementing the plan. This could include budgeted County funds as well.

A significant resource is the background and experience of the staff at the various County Economic Development Departments, as well as the staff of the Mid-Shore Regional Council. Staffs at these agencies are supported by the diverse experience in the private sector and the advisory boards for each County.

CHAPTER 2 - VISION STATEMENT

2.1 Development Strategy

The goals outlined in this CEDS were developed in response to the barriers to economic development, and the needs and opportunities identified in the analysis. These goals provide a comprehensive framework for guiding future economic development decisions within the Mid Shore Region. They also reflect the direction and types of economic activity to be encouraged.

2.2 Goals and Objectives

- 1. Ensure that there is sufficient public infrastructure (e.g. telecommunications, IT, incubators, waste water treatment capability, roads, transportation, education facilities, technology training centers, and public parks) and investment capital to foster the development and prosperity of our existing and new industry clusters.**

Design and implement a master plan for regional telecommunications infrastructure and facilities to provide affordable, redundant broadband services for the public and private sectors.

Conduct regional waste water assessments and determine capacity and technology needs to handle future growth and economic development.

Improve the services available at existing and new industrial sites to further their potential for development.

Establish and support regional investor network(s) and increase awareness, involvement and investments from angel investors and venture capital firms.

Support and expand a regional revolving loan fund to promote job growth and support expansion of local businesses.

Strengthen transportation linkages and make recommended improvements to Route 404 and Route 50 and the Dover Bridge located on Maryland State Road 331.

Support the funding and expansion of the coordinated regional transit program.

Bring together federal, state, and local funding to acquire land and infrastructure for the development of business parks and technology training centers.

- 2. Establish a regional identity and marketing plan that leverages our competitive advantages, protects our natural resources, honors our rural heritage and takes proactive measures to diversify the economy.**

Create a regional branding plan that supports the CEDS vision statement and obtain support from each county and local business leaders.

Obtain funding to implement a regional branding strategy.

Support ongoing regional efforts to grow the cultural and heritage tourism industry.

3. Encourage programs that accelerate the development of companies that apply new concepts and technologies in innovative ways.

Establish incubation programs that accelerate the development of environmentally friendly science (marine & environmental), agriculture, aquaculture, and technology based business.

Develop a center for entrepreneurship.

Develop technical assistance programs that accelerate growth and business.

Develop CEO and peer groups to provide technical support for expanding or struggling businesses.

4. Strengthen and diversify agriculture, fisheries and support newest techniques in aquaculture and agriculture.

Support the development of renewable, sustainable fuel sources.

Explore and identify emerging agricultural and food market opportunities associated with soy, common grains and other agricultural products that can be grown locally and provide high value markets for Delmarva farmers.

Support the development of value added agriculture businesses (such as viticulture).

Identify opportunities for high value aquaculture operations (to include finfish and shellfish) that create new opportunities for watermen and entrepreneurs.

Work with legislators to remove local and state policies that are a barrier to on-farm processing and innovative niche farming operations.

Create an agriculture incubator for testing and growing ethnic/niche produce that will create work for recent immigrants, and opportunities to test and explore the agrarian knowledge they bring from their culture and countries.

Retain the region's largest agriculture sector – poultry.

5. Support opportunities for continuous learning and workforce development.

Ensure that continuous learning and workforce development resources are available to all segments of our population.

Implement the findings of the regional daycare (childcare and eldercare) and work ethic taskforces.

6. Provide regional data and technology services needed for present and future infrastructure planning and construction (e.g. regional GIS mapping system).

Conduct growth impact assessments for the various jurisdictions within the region to determine long term infrastructure needs.

2.3 Vision Statement

By executing a strategically sound business development and retention strategy, encompassing every Mid-shore jurisdiction, create a community where individual growth is nurtured and encouraged, where the creation of wealth is the result of a viable and diverse business community, where a range of cultural programs provide relaxation and stimulation, and where educational institutions provide opportunities for every age and socio-economic profile to improve their standard of living and reside in a safe and clean environment.

- Continually seek to improve education and training opportunities
- Preserve and promote the culture and heritage of the region
- Nurturing new ideas in the arts and business
- Foster the growth of broad spectrum of knowledge based industries
- Create more opportunities to retain our youth by providing suitable employment and living conditions
- Continue to focus growth in the towns and villages that have adequate workforce, transportation, and infrastructure
- Support existing and new efforts to strengthen and diversify our resource-based industries

CHAPTER 3 – ACTION PLAN

Project Criteria

The following projects have been identified and ranked for the program year. They represent a comprehensive approach to achieving our regional economic development goals and mitigating existing challenges to high wage job creation in the region.

Although EDA funding is a primary source for many of the projects the CEDS Committee and Counties understand that financial assistance will be sought from various state and federal agencies.

To help the applicants gauge whether their projects are eligible for EDA funding and meet current funding priorities, the Committee requested the development of an evaluation matrix. Steering Committee member and CEO of the Chesapeake Bay Region Technical Center of Excellence, John General, created the CEDS Project Evaluation Guidelines (CEDS PEG). **See Appendix C**

The Projects are organized into 5 categories:

- Infrastructure
- Public works
- Strategic planning and analysis
- Business acceleration and investment
- Agriculture, Aquaculture and Forestry

Infrastructure

Mid Shore Business and Technology Park

Priority Rating - High

Background

For the past 300 years much of the Mid Shore Region has relied on commercial agriculture as a primary industry. To diversify the industry base of Caroline County several industrial parks were established in the 1970's. These parks have been filled and primarily house light manufacturing and distribution companies.

Caroline County qualifies as a One Maryland jurisdiction based on low per capita income and is a priority State investment area. Lack of improved land and business parks has been identified as a barrier to economic development in the Region by the CEDS committee. To this end, Caroline County is undertaking two major initiatives: 1) The development of Ridgely Regional Airport and, 2) The construction of the Mid Shore Business and Technology Park which will be located adjacent to the airport.

Purpose

The Business and Technology Park will develop a modern facility that is strategically located to promote economic growth and create higher paying jobs. The strategy of the project is to build the capacity for technology related businesses and compliment other similar efforts in the region. The Ridgely site offers businesses the opportunity to utilize the adjacent airport facilities to enhance their logistics and marketability. By locating the park next to the airport, we expect to grow an aviation industry cluster that will diversify the Caroline County and regional economy.

Project Description

The location of the technology park is one mile north of Ridgely, Maryland just off MD Route #312. The Town of Ridgely is in the process of annexing the area into the town. Ridgely has also agreed to provide sewer and water to the Technology/Business Park and the airport.

Phase One of the project is to acquire the property known as the "Hayman Farm" which consists of several parcels totaling approximately 92 acres. An option to purchase the property has been negotiated with a purchase price of \$750,000 that will be paid by Maryland One funding. The area has been rezoned by the County and has received from the Department of Planning Priority Funding Area (PFA) status as of June 25, 2002. The Phase One and Phase Two environmental studies have been completed. Additionally, all necessary studies have been accomplished in this phase including the engineering master plan and the business plan.

The second phase of the project is the development of the park that includes building site preparation, the infrastructure and the construction of the first park building. Groundbreaking ceremony occurred on November 28, 2006. Completion date for site construction is 270 days.

Cost

Total Project Cost	\$6,900,000
Estimated Maryland One financing	\$4,500,000
Funding request from EDA	\$2,100,000(Water, sewer, and roads)
Caroline County	\$300,000

This exciting project represents a new direction in economic development for Caroline County. The Caroline Business and Technology Park is a top priority of both the Commissioners of Caroline County and the Town of Ridgely officials. We have also been encouraged by the help provided by the Maryland Department of Business and Economic Development. Caroline County has proceeded with this project and has demonstrated the ability and commitment to support this endeavor.

Project Partners

- Caroline County
- Town of Ridgely
- Maryland Department of Business and Economic Development
- Mid Shore Regional Council
- EDA
- USDA
- Rural Development Center, UMES

Dorchester Technology Park

Priority Rating – High

Background

Dorchester County, the largest county on Maryland's Eastern Shore, has embarked on a revitalization program to enhance the economic development vitality of the area by exercising several options to increase the potential of attracting and expanding/retaining business to encourage and assist in the growth of industrial opportunities. Manufacturing accounts for 28% of total employment. One of these options is a planned 100+acre Technology Park near Cambridge. This Park will be owned and managed by MEDCO through the Maryland Department of Business and Economic Development's One Maryland Program.

In 1985, Dorchester County completed its development of the Chesapeake Industrial Park in Cambridge. The initial Industrial Park is on a 47-acre site and was developed into eight 5 acre parcels. All lots have been sold. In 1993, Dorchester County purchased another 30 acre parcel adjacent to the Chesapeake Industrial Park. This property was subdivided into four parcels and zoned light industrial. All lots have been sold and developed which leaves Cambridge without any industrial land for further development.

Purpose

Dorchester County will market to small technology and medical equipment firms. Having lost almost 1,800 jobs in Dorchester to firms which have relocated to developing countries over the last five years, the abundance of labor and trained technicians are already here. With the aid of our transportation system, Cambridge is a central location on the Shore and we anticipate a regional effort to attract former employees from Black and Decker and surrounding counties. The market for medical devices is nearby, also, with large university hospitals, Johns Hopkins, National Health Institute and others so very close.

Project Description

The Technology Park will consist of at least 100 acres, zoned light industrial. Phase One of the project is to acquire the property with One Maryland money. The engineering and annexation process are complete. The Park will be subdivided in 15 five-acre lots. We expect to draw employees from the four country region.

It is felt that this particular configuration will allow us to maximize the types of industry locating in the County as well as provide a good choice of sites to the companies which would help to attract them to the area. We will market the Park to technology medical research and device companies.

Project Partners:

- Dorchester County
- City of Cambridge
- Maryland Department of Business and Economic Development (DBED)
- Maryland Economic Development Corporation (MEDCO)
- Economic Development Administration (EDA)
- United States Department of Agriculture (USDA)
- Current Development Phase – Planning
- Funding Request - \$2.5 million – water and sewer
- Estimated One Maryland Funding - \$1.75 million – Acquisition of Land

Priority Rating – High

Background

In April of 2002 The Technology Development Corporation of Maryland released their assessment of technology infrastructure for the State. The report verified the fact that the Eastern Shore does not have a regional broadband backbone and is drastically underserved when compared to other parts of the State. This lack of infrastructure creates a significant barrier to diversification of the economy and recruitment and development of new industries to the area. Potential growth clusters identified by the CEDS committee include IT and science based companies that will rely heavily on broadband infrastructure. To make this region attractive to high tech companies the development of a regional IT backbone is essential.

Project Description/Strategy

Modeled after an EDA funded project in Virginia, the proposed backbone will connect industrial parks, Incumbent Carrier Central Office locations, and areas of interest such as higher education facilities, hospitals and business centers. The goal is to bring competition, affordable prices, and redundant/scalable access for all carriers who desire to provide competitive advanced broadband services to rural Maryland (Eastern Shore, Southern Maryland, and Western Maryland). The backbone will be owned by the Maryland Broadband Cooperative (Mdbc) however, they will not offer lit services. Any company that purchases Mdbc dark fiber can offer lit services to other carriers.

The Economic Development Administration fully understands that affordable advanced broadband services are the only way many rural communities can compete in a global networked. They have expressed interest in investing several million dollars in this project. The total project consists of 525.2 miles of fiber connecting NASA Wallops Island Facility in Virginia to the Patuxent Naval Air Station in Southern Maryland via the Chesapeake Bay Bridge, establish fiber loops connecting the Mid-Shore to the Upper Shore region on the Eastern Shore, and connecting the three Western Maryland counties to the network. The network can be built in phases. **Projected Cost** - \$29,097,500Mdbc has identified financing options for the balance of the project not provided by the EDA. Maryland's General Assembly passed Senate Bill 753 in 2006 that provides funding for the construction of fiber projects for rural Maryland for \$10M over a three year span (FY 2007, 2008, and 2009). The federal government with support from U.S. Senator Barbara Mikulski secured \$2M in funding for FY2007. The Mdbc is in discussions with the State of Maryland regarding resource share and right of way access.

Project Partners

- Economic Development Administration
- Maryland Department of Budget and Management
- Department of Business and Economic Development
- TEDCO
- Lower Shore Tri-County Council
- Mid Shore Regional Council
- Upper Shore Regional Council

Infrastructure Related to the Commercialization of Denton

Priority Rating – Medium

Background and Purpose

Denton, the county seat of Caroline County, has been hard-hit by the loss of commercial and construction jobs resulting from the migration of commercial businesses to retail hubs such as Easton and Annapolis, Maryland as well as Dover, Delaware. Particularly adversely impacted has been the central or historic business district of the Town.

To counter these losses, the Town has laid out an aggressive revitalization program for the central business district with four key components; (a) The Wharves at Choptank Crossing project, described below; (b) the first retail incubator in Maryland; (c) the Chesapeake Culinary Center which teaches culinary skills to students; and, (d) the Artsway project, which creates a artisan village as the eastern anchor of the historic business district.

Project Description

The Wharves Project. The Wharves at Choptank Crossing (“Wharves”), which would form a western anchor for the central business district, is almost fully funded and the marine-related elements are started. The Wharves project has four critical components. These include: (a) a visitor’s center; (b) a destination restaurant; (c) a boat marina; (d) boat wharves; and, (e) a nature trail. All of these component projects have been fully funded with federal, state and local monies totaling over \$3.0 million. Unfortunately, as discussed below, critical infrastructure for the project has not been funded.

Infrastructure needed. The infrastructure for the park has been determined and an Infrastructure Master Plan has been prepared. Items needed include electric, parking lots, water, sewer, road-elevation work, and landscaping and storm-water management.

Cost

Projected cost of infrastructure is approximately \$875,000. Professional engineers and consultants have estimated the above-described infrastructure costs at \$874,808.

Job Creation

Job creation will be both direct and indirect. For example, employment at the destination restaurant of the Wharves project is expected to be a minimum of twenty persons. Indirect job creation is expected to be extensive. The combination of the components of the entire revitalization project should produce hundreds of jobs.

Work ready to commence

As discussed above, all of the plans for the infrastructure have been completed. All that needs to be done is to bid the work.

Mistletoe Farm Project

Priority Rating – High

Background

The Town of Easton owns a 68 acre parcel of undeveloped land, located to the west, in the Town of Easton and referred to locally as Mistletoe Farm. The property is located adjacent to an existing County owned business park, the Talbot Commerce Park, Bryan Brothers property and the Easton Airport.

Mistletoe Farm is an irregular area of woodland and field with proposed access to the property available from Goldsborough Neck Road. The parcel is dissected with a wetland area that cuts the property in half: a 40 acre parcel with frontage on Goldsborough Neck; and a 20 acre parcel with frontage to the Easton Airport. The Airport must extend its current runway safety fly zone which will force the relocation of one of the fast growing DoD contractors in the region; Global Strategies (formerly SFA). The Easton Airport currently supports 15 businesses and 300 jobs and is vitally important to the economy of the Town of Easton, Talbot County and the Mid Shore area.

Purpose

The Town of Easton would like to develop Mistletoe Farm into a business park that would offer sites for industrial, technology and aviation businesses.

Global Strategies manufactures shelter products with sales of \$105 million/year expected to grow to \$160 million by 2012 and expect to lease or build a new 200,000 SF facility on 30 acres. The jobs connected with this one facility will grow from 130 to 300 by 2012. The Airport is expected to grow an additional 100 jobs with airport related businesses.

Project Description

The Town of Easton would like to develop Mistletoe Farm and is interested in opportunities to leverage the investment. The site is zoned Industrial and is included in the Town of Easton's Comprehensive Plan as a priority for development. Mistletoe Farm currently has access to Town water and sewer and electric but additional work is required to finish the utilities to the sites which have not yet been engineered. The Town is currently estimating the total investment that will be required for design, environmental studies, critical area and mitigation, engineering, construction of roadways, completion of the water and sewer and electric infrastructure build out to the newly defined sites and additional amenities (sidewalks, street lights, a mass transit shelter, etc).

Estimated project cost \$4 million

Estimated time line 5 years

Jobs associated with the 60 acre parcel 400 by 2012

Project Partners

- Talbot County
- Town of Easton
- Maryland Department of Business and Economic Development (DBED)
- Mid-Shore Regional Council
- U.S. Department of Commerce, Economic Development Administration (EDA)
- United States Department of Agriculture (USDA)

Speculative Building for the Caroline Technology Park in Ridgely

Priority Rating – Medium

Background

Historical background. Historically, Caroline County has been extremely successful in using speculative buildings to jump start their *industrial* parks. The same strategy appears to apply to the new Technology Park.

In that regard, until the 1970's Caroline County had no industrial parks, or even an industrial base. For over 300 years the economy of the county was based solely on agriculture or agriculture-related businesses.

During the 1970's and 1980's the county government, in cooperation with the towns of Denton and Federalsburg, erected three industrial parks. In each park, a 30,000-square-foot speculative building was erected, and in each case the building was quickly sold and occupied, creating the first tenant in each of the parks. Numerous tenants followed until all three of the parks were completely sold out.

Recent experience. The County has retained Ms. Cynthia Pyron as Marketing Director for the park. The Caroline Economic Development Corporation, a nonprofit corporation that handles economic development for the county, has also been engaged in taking "prospects" to the newly finished park. In various instances, the absence of a speculative building has been a decisive element in the failure to attract tenants for the park.

Purpose

Based on recent marketing experiences as well as long-term experience dating to the 1970's, the Caroline Technology Park at Ridgely needs a speculative building to "jump start" the park. The following relates to this need.

Project Description

The need for a speculative building anticipated. Based on the previous experience of the county building an industrial base, the need for a speculative building in the Technology Park was fully anticipated. The building and site chosen for the speculative building were designated as "Building H" on the Master Plan.

The plans for Building H, the proposed speculative building, are for the erection of a two-story building of 12,500 square feet. The building will have a "rural architectural design," as shown on the elevation design for Building C. Building H will be a "green building," LEED-qualified in every respect with a direct connection to the fiber-optic backbone presently under construction on the Eastern Shore or Maryland.

Finishes in the building will include a small office, a conference room and an elevator. The office space and conference-room will be immediately utilized for sales and local-government meetings. The remainder of Buildings H will be speculative space without partitions, but with basic finishes that include ceiling lights, HVAC and central restrooms.

Site work, including immediate access to storm-water management and a parking lot, was included in the construction of the park. The site also has immediate access to utilities.

Cost

Projected cost is approximately \$3.1 million. The County has obtained an estimate of \$250 per square foot for the actual construction of the 12,500-square-foot speculative building. Hence, the total projected cost of the facility is \$3,125,000.

Job Creation

The Maryland Technology Development Corporation states that the minimum job-creation estimate for the building should be one job for every 250 square feet. Thus, the building should produce a minimum of fifty jobs. The County estimates a minimum of 75 to 100 jobs, just in Building H.

Equally important, the project is expected in many cases to serve as critical start-up space for larger projects that will involve the erection of a new building in the park. Hence, actual job creation may be in the hundreds.

Regional Medical Facility

Priority Ranking – High

Background

To retain the Memorial Hospital at Easton, the Talbot County Council offered a 250-acre parcel along U.S. Route 50 to Shore Health System, Inc. (SHS), a subsidiary of the University of Maryland Medical System (UMMS). Construction estimates for the build-out of this project, exclusive of the funding request for the extension of water and sewer service, are approximately \$250,000,000. Additional investment is planned for the build-out of the medical campus which will include massive, decade-long development and construction. The County Council awarded the design of the sewer lines, pump station and force main and water lines to Easton Utilities, a municipality-owned utility, on December 23, 2008, with the final designs for sewer lines, pump station and force main being forwarded for approval to the Maryland Department of the Environment in May 2009.

Purpose and Project Description

This project will provide medical care and medically-related services to the more than 160,000 current residents of the Mid and Upper Shore Region, a population which is expected to grow throughout the foreseeable future. The project will require the extension of water and sewer services from the Easton Wastewater System at a cost of \$15.5 million; \$7.6 million for water and \$7.9 million for sewer. This needed economic stimulus will generate a minimum of 160 jobs associated with the utility construction alone which includes over 2.5 miles of gravity sewer lines and force mains and about 4.0 miles of water lines. Construction of the medical facility and campus will employ several hundred workers over a span of four (4) to ten (10) years. Further economic stimulus will follow with employment to support the Regional Medical Campus which includes both UMMS/SHS and private sector medical services. In addition, Talbot County is in the process of designing an approved Athletic Complex adjacent to the Regional Medical Campus site and the Talbot County Community Center. The Athletic Complex, with a total project cost of \$6,000,000, is anticipated to generate about 50 construction-related jobs as well as additional employment opportunities related to that project.

By retaining the UMMS/SHS Regional Medical Facility in Easton, the County will maintain its largest employer, which currently generates over 2,400 full-time positions, 1,681 of whom are residents of Mid Shore Counties (Talbot, Caroline and Dorchester). In addition to retaining these jobs, the new acute care hospital, medical campus, and medical services facilities are anticipated to provide 600 additional jobs at an investment of \$450,000,000. The projected build-out of the Regional Medical Facility is expected to occur over many years, providing stable work for several thousand employees.

Talbot County is proceeding with the preparation of the proposed 250-acre site and would like to add the new UMMS/SHS Regional Medical Facility as a priority for EDA funding consideration so that, as project decisions are made, the resources are available to support the infrastructure costs. The UMMS/SHS Regional Medical facility will provide medical services to a large portion of the rural Maryland Mid and Upper Shore population and is anticipated to draw patients from the greater mid-Maryland region. The Regional Medical Facility is a legacy project that will significantly impact the entire regional economy.

Project Cost

Total Project Cost:	\$250,000,000 Proposed Medical Facility \$200,000,000 Additional Medical Campus
Talbot County	\$2,000,000 (land purchased and optioned)
Funding request MD DBED CDBG	\$2,000,000 (Water and sewer to site)
Funding request USDA	\$2,000,000 (Site development)
Funding request from EDA	\$4,000,000 (Water and Sewer/site development)

Summary

The UMMS/SHS proposes a \$250,000,000 Medical Facility, a milestone project for the Mid-Shore Region. By locating the facility at the northern end of the Town of Easton, the Facility retains its accessibility and proximity to existing medical office infrastructure and provides for future expansion within a Priority Funding Area which may reasonably absorb the growth. Talbot County, in its effort to retain the proposed medical complex, is proceeding with efforts including annexation, zoning and a critical path for infrastructure considerations.

Project Partners

- Talbot County
- Town of Easton
- Maryland Department of Business and Economic Development
- Maryland Department of Transportation
- Mid-Shore Regional Council
- U.S. Department of Commerce, EDA
- U.S. Department of Agriculture

Cambridge Waterfront: SAILWINDS PARK

Priority Rating – Medium

Background

Cambridge's waterfront has been studied extensively over the past several decades and has been identified as the key to the City's economic revival. The waterfront's current amenities, including the prominent sail, visitor center, boardwalk, play-ground, recreation area, and the Hyatt Chesapeake Resort represent the beginning implementation of the original Sailwind's Plan, dating from the early 1990's.



Cambridge's recent process of updating their Comprehensive Plan included a separate public charrette focusing on the waterfront from the Hyatt to Great Marsh Park. The community consensus resulted in a concept plan called the Waterfront 2020, which was incorporated as part of the final Comp Plan, adopted in 2011. The companion Sage Policy Group Report, which serves as the economic strategy for the City of Cambridge, strongly reinforced this policy direction.

One of Sage Policy's nine recommendations in the City's Economic Development Strategic Plan is to: **"Leverage Cambridge's Waterfront: Implement Waterfront 2020 Plan** - This should be the City's number one Economic Development Project... No aspect of economic development in Cambridge is as potentially impactful as this and therefore there should be a significant level of urgency regarding implementation of the [Waterfront 2020] Plan."

Purpose

The Waterfront 2020 (W2020) concept, as identified in the City's Comprehensive Plan, was designed to attract mixed-use development for Sailwinds Park (west). The W2020 devises a plan to leverage Cambridge's waterfront into significant job creation and enhanced visitation for an area stretching from Great Marsh Park to the Hyatt Resort along the Choptank River.

The objective of the W2020 implementation is to successfully partner with the State of Maryland, developer, county, and citizens to develop the port property site in ways that promote tax base formation, greater visitation, employment and sustainability. The project is expected to attract between \$40 to \$63 million in public and private investment over the next 3 to 10 years, generating some 550 construction jobs and over 300 permanent positions. The mixed-use approach will provide a sustainable economic engine that will encourage further revitalization and growth in the Mid Shore Region.

Project Description

The Sailwinds property, covering some 11.8 acres on the Choptank River, which is owned by the Maryland Port Authority, has been declared 'surplus' by the state, and can now be utilized for development including expanded waterfront access for residents and visitors.

Cambridge has been identified by the State for revitalization through various programs including Smart Sites, public-private partnerships, increased awareness of the significant impact of Harriet Tubman on the area's history, and redevelopment opportunities centered around the Sailwinds (west) property on the Cambridge waterfront. One of the most important aspects of the Waterfront 2020 plan is to develop additional local tourism infrastructure and to help connect the City's waterfront more effectively to other community assets. Accordingly, the concept plan encompasses comprehensive city renovations to enhance the linkages and accessibility to Sailwinds, the downtown and other waterfront sites like the lighthouse, marina and Hyatt Resort.

The Sailwinds project will attract private investment. Currently, the Jerome J Parks Company is preparing preliminary site plans for a mixed use development that could include elements such as a 100-room boutique hotel, retail shops, a variety of unique restaurants, expanded space for community college classes, additional parking, a wharf to accommodate small cruise and transient boating, a senior living facility, plus a broad promenade connecting the Dorchester County Visitor Center, the Choptank waterfront, the Sailwinds Park property and the Richardson Foundation Historic Maritime Museum. The Sailwinds property can become an economic anchor for Cambridge. The overall vision is to create a destination that will rival other popular waterfront towns on the Chesapeake Peninsula and Atlantic Coast.

Project Partners

The City of Cambridge has established various levels of partnerships in both the private and public sector. The Maryland Department of Transportation (MDOT) and Maryland Port Administration (MPA) are significant partners in the Sailwinds project. An official Memorandum of Understanding (MOU) formalized the relationship between Cambridge and the two state agencies in June 2010. Through the designation as a Maryland Smart Site, MDOT anticipates an increased role across state agencies to fulfill the potential of the project. Dorchester County has a key role and has been an active participant in the process. In particular, they are represented on the established 'Sailwinds Work Group' along with MDOT, MPA, Jerome J Parks Company and the City of Cambridge.

The Jerome J Parks Company was selected as the developer to have sole negotiation rights on the mixed-use development plan for Sailwinds. The state finalized a work agreement with JJ Parks in June 2012. Additionally, a 26-member Cambridge Waterfront Advisory Committee was established to help guide the project. This group represents a cross section of the community and stakeholders that will assure the final development plan remains consistent with the elements of the Waterfront 2020 plan.

A collaborative approach is required for the success of this effort among all the stakeholders, emphasizing strong communications, transparency and a commitment to conflict resolution to achieve the shared vision. Other important players include the Hyatt Resort, Eastern Shore Land Conservancy, Richardson Foundation, Sailwinds of Cambridge, Inc., Maple Street, Pine Street, Main Street and Sailwinds Park, Inc.

Maryland Economic Development Corporation (MEDCO) and the Maryland Department of Business and Economic Development (DBED) played a leadership role in reviving the Sailwinds project and continue to stay at the ready. The Maryland Department of Planning also has maintained a keen

interest in this project, participating in public meetings and tracking the project's progress over the last few years.

Project Cost

The overall project cost is estimated in the range of \$40 to \$63 million over the next 3 to 10 years, from the private and public sectors. The major economic impact will be realized in terms of strengthening Cambridge as a regional destination, the revitalization of downtown, and the transformation of an underutilized property into a revenue-generating waterfront development.

Public Works Projects

St. Michaels Wastewater Treatment Plant and Sewer Collection System

Priority - High

Background

The Region II Wastewater Treatment Plant located near and serving the Town of St. Michaels and surrounding communities is completing upgrades through the Bay Restoration Fund, and to address life expectancy issues of the existing system, and plan for future development. In accordance with the Facility Plan and the Talbot County Comprehensive Water and Sewerage Plan, the facility is presently being constructed with a capacity of 660,000 gallons per day with a peak flow mitigation system being design to address high flow experienced during wet weather events. The Enhance Nutrient Removal upgrade is expected to be completed by December 2007.

To address sewer system overflows and reduce peak flows experienced during wet weather events, a detailed analysis and an aggressive design and construction improvement program has been initiated to address inflow and infiltration into the gravity sewer collection system. During wet weather events, sewer system overflows occur in the Town of St. Michaels' harbor areas creating unsightly attractions for tourists and impacting the public health and the environment. Because of continuing problems with the gravity sewer collection system in the Town of St. Michaels, Talbot County hired an engineering consultant to design pump station improvements to eliminate sewer overflows. The pump station improvements were completed by directionally boring a force main from the pump station to the wastewater treatment plant and upgrading the pump station with new pumps, controls and emergency generators. This improvement will eliminate overflows that result from the gravity sewer collections becoming surcharged during wet weather events then over flowing when the force mains pump wastewater sewer lines and ultimately out of the system.

Because of the leaking sewer collection system, Talbot County has directed its engineering consultant to develop an aggressive rehabilitation program using a computer model to assist the County in implementing capital improvements. Using this program, the County is presently completing manhole rehabilitations and replacements, and sewer line rehabilitation through slip lining with this work being completed by May 2007. Therehabilitation and replacement of sewer lines and manholes is planned for the future with all this work reducing inflow and infiltration within the gravity sewer collection system.

These improvement projects will help attain the following CEDS goals and objectives:

- To assure adequate public services and infrastructure to support and complement the targeted level of economic growth; and
- To assure a diversity of economic opportunities within the Town of St. Michaels, and surrounding communities in the county that are consistent with the character of the community and its capacity to provide public services; and
- To improve and expand the capacity of the wastewater treatment and gravity sewer collection systems to meet present needs and future commercial and general population growth;
- To improve and protect the water quality of the Miles River that supports the commercial interests of the region and general population.

To accomplish the CEDS goals and objectives and meet the goals and objectives of the Chesapeake Bay Agreement, Talbot County, since 2001, has been completed and anticipates in completing the following:

- In-pipe Flow Monitoring and Smoke Testing (July 2003) - \$48,000
- Design of Biological Nutrient Removal Upgrade and Expansion of the Region II Wastewater Treatment Plant (February 2003) - \$450,000
- Sewer Collection System Study and Computer Model (October 2004) - \$278,000
- Biological Nutrient Removal Upgrade and Expansion (December 2007) - \$13,500,000
- Pump Station Improvements Construction (May 2007) - \$2,500,000

Project Description/Strategy

- Pump Station Improvements Construction - \$1,300,000
- Sewer Collection System Improvements – (\$5,000,000 – County to schedule high priority improvements first and budget improvements in future fiscal years. Funding assistance is desired for a portion of the cost.)

Cost

- \$1.3M for Pump Station Improvements
- \$2.5M for sewer collection improvements

Total \$3.8M

Project Partners

- Talbot County
- St. Michaels
- EDA
- USDA
- Maryland Department of the Environment

North Carolina County Wastewater Treatment Plant and Sewer Collection System

Priority – High

Background

A North County Wastewater Treatment Plant to be located near Goldsboro and serving the Town's of Goldsboro, Henderson, Marydel, and Templeville is planned to address failing septic systems and to address needs for future development. The Maryland Environmental Service has been contracted to design the facility with a capacity of approximately 400,000 gallons per day (gpd).

To adequately address failing septic systems in the North County region and accommodate new development, the County and its partners conducted a build-out analysis for the region. The analysis indicated a sewer system need ranging from approximately 190,000gpd to 584,000gpd based on various build-out scenarios (no growth to substantial growth). Subsequent discussion among the partners resulted in an approximate need of 400,000gpd to serve the existing need and future growth. Currently, the Maryland Environmental Service has been contracted to design and engineer a wastewater treatment plant to handle this capacity. This will be a new wastewater treatment system.

These improvement projects will help attain the following CEDS goals and objectives:

- To assure adequate public services and infrastructure to support and complement the targeted level of economic growth; and
- To assure a diversity of economic opportunities within the North Carolina County region; and
- To improve and protect the water quality of the Choptank River that supports the commercial interests of the region and general population.

To accomplish the CEDS goals and objectives and meet the goals and objectives of the Chesapeake Bay Agreement, Caroline County has completed and anticipates completing the following:

- Build-out Analysis (July 2007)
- Alternative System Analysis, Design, and Engineering of North County Wastewater Treatment Plant (September 2009) - \$868,000
- Construction of Wastewater Treatment Plant - \$20,000,000 (Will be seeking funding from multiple sources)

Project Description/Strategy

- Complete alternative system analysis, design, & engineering - \$868,000
- Sewer Collection System – (\$20,000,000 – County to develop a phased approach dependent upon system design. Funding assistance is desired for a portion of the cost.)

Cost

- \$868,000 for system analysis, design, & engineering
- \$20M for sewer collection system

Total \$21M

Project Partners

- Caroline County
- Goldsboro
- Henderson
- Templeville
- Marydel
- EDA
- USDA
- USEPA
- Maryland Department of the Environment

Talbot County Bio-Solids Treatment Facility

Priority – Medium

Background

The Bio-Solids Facility is located near the Town of Easton and serves over 16,000 commercial and residential properties having on-site sewage disposal systems (septic systems) in Talbot and Caroline Counties as indicated within the respective County Management Septage Plans. The treatment facility needs to be upgraded to address permit compliance issues related to processing septage, adding new brown grease acceptance and treatment services, and addressing various worker safety issues.

By improving the septage treatment capabilities this facility will be able to comply with all permit requirements and avoid future processing issues that could hamper the facility's ability to meet daily demands. Interruptions in the processing of septage would impact 20 businesses located in Dorchester, Caroline, Talbot, and Queen Anne's Counties that pump out septic systems and impact a large number of residential and commercial properties trying to maintain their septic systems. In addition, the proposed improvements would address longstanding worker safety issues.

When this facility was privately owned the method for accepting and disposing brown grease generated odors that impacted the neighboring residential properties. In reviewing the acceptance and treatment of brown grease which is collected from in-ground grease traps, the County focused on developing a new treatment strategy that processed the mixture of water and grease within enclosed tanks equipped with odor control systems compared to the previous method of concentrating grease in an open tank. The addition of brown grease treatment would assist restaurants in the Midshore Region in maintaining their in-ground grease traps and provide a long-term solution for preventing grease from entering the sewer lines connected to municipal wastewater treatment plants serving residents in the Midshore Region.

Purpose

After concentrating the brown grease, the County would dewater the grease within an enclosed building. In developing a treatment solution, the County has created an energy sustainability strategy that will utilize the BTU value of the dewatered grease. In addition, the County is proposing to pilot the use of dried switch grass as a filter mat for the grease and then burning the grease and switch grass to produce steam for drying and electricity to be used on-site.

This overall strategy for grease will address a growing concern on the Eastern Shore related to environmentally sustainable facilities for the acceptance and treatment of brown grease. The only facility accepting brown grease within the Midshore Region is the Hurlock Wastewater Treatment Plant. However, the grease disposed within the treatment lagoon has presented operational concerns, and the only other facility accepting grease is located in Delaware. The lack of a treatment facility within about 30 miles of the Town of Easton as well as Queen Anne's and Caroline Counties, exposes businesses to higher transportation costs. In addition, any interruptions at the Hurlock Wastewater Treatment Plant would adversely affect businesses pumping out grease traps and restaurants in Dorchester County would need an alternative treatment facility. The added brown grease acceptance and treatment operations would provide restaurants in Dorchester, Talbot, Caroline, and Queen Anne's

Counties with a long-term solution to treating brown grease and will assist the 20 businesses located in these counties in maintaining lower transportation costs. As transportation costs rise due to increased distances and increased fuel prices, the on-going maintenance of grease traps could be dropped or abandoned by various restaurants thus exposing municipal wastewater treatment systems to clogged sewer lines that result in sanitary sewer overflows and increased maintenance costs at the treatment facilities.

As wastewater treatment plants are upgraded with Enhanced Nutrient Removal and need to meet Total Maximum Daily Loads, these facilities are prohibiting the disposal of brown grease within the sewer collection systems. With limited treatment facilities accepting and disposing brown grease, these improvements are needed to support the businesses as increased regulations impact the treatment and disposal of brown grease.

The improvement of this facility will help attain the following goals and objectives which are concurrent to the CEDS goals and objectives:

- To assure adequate public services and infrastructure to support and complement the targeted level of economic growth; and
- To assure a diversity of economic opportunities throughout the Midshore Region that are consistent with the character of the Eastern Shore and its capacity to provide public services; and
- To improve and expand the capacity of the treatment facility to meet present needs and future commercial and general population growth; and
- To improve and protect the water quality of the Chesapeake Bay and its tributaries that supports the commercial interests of the region and general population.

To accomplish and meet the goals and objectives of the Chesapeake Bay Agreement, Talbot County, since 2007, has completed and anticipates the following to be completed:

- Constructing a Renewable Energy Demonstration Project to generate 600 kilowatts of electricity
- Completing the Preliminary Engineering and Environmental Reports for future grant and loan funding
- Setting meetings with waste haulers to update them on the progress of improvements
- Developing strategies to maintain pricing for at least five years due to the on-going issues with the economy

Project Description/Strategy

- Constructing tanks, odor control, dewatering building, boilers and steam generator for the disposal of brown grease.
- Construction of after-hour unloading system, expanding process tanks and improving chemical feed systems and replacing screening equipment.

Cost

- \$1.5M for Grease Treatment Technologies
- \$2.5M for Septage Treatment Improvements

Total \$4.0M

Project Partners

- Talbot County
- Caroline County
- Dorchester County (Potential Project Partner)
- USDA
- Maryland Department of the Environment

Strategic Planning, Analysis and Access to Capital

Mid Shore GIS Technology Center

Priority Rating - Medium

Background

Lack of standardized, current data and mapping technology has hindered the ability of the Counties to meet the demands associated with planning and implementation of regional telecommunications infrastructure, road construction, creation of technology parks, and identification of waste water infrastructure needs. The CEDS committee identified this lack of GIS infrastructure as a significant barrier to economic development.

Project Description/Strategy

A centralized GIS technology center will provide cost effective and critical mapping services that will increase the institutional and technical capacity for job creation activities in the region.

The GIS Center is sponsored by the Mid-Shore Regional Council and the Tri-County Council for the Lower Eastern Shore. The GIS Center is operated at Salisbury University as the Eastern Shore Regional GIS Cooperative (ESRGC). The ESRGC currently has contracts with seven counties on the Eastern Shore.

The ESRGC works cooperatively with private businesses, county governments, Universities and Community colleges, and the State of Maryland to identify, prioritize and implement projects.

Cost

The ESRGC is funded by annual donations of \$15,000 from the two Tri-County Councils and in FY2007 received \$15,000 from Caroline County. The coop also charges for their services, members of the coop pay 50% of a projects cost. Currently, the ESRGC is working with the Tri-County Councils to expand their revenue sources as the ESRGC is experiencing tremendous demand for their services.

Project Partners

- EDA
- Mid-Shore Regional Council
- Chesapeake College
- Salisbury University's Geography Department
- University of Maryland Eastern Shore – GIS Department
- Caroline County, Dorchester County & Talbot County

Priority Rating - High

Background

Broadening the economy of the Mid-Shore region and supporting new techniques in aquaculture and agriculture are major goals of the Mid-Shore Regional Council Comprehensive Economic Development Strategy. The Chesapeake Bay Region Technical Center for Excellence (CBRTCE) received a competitive grant award from the Maryland Technology Development Corporation (TEDCO) to accomplish an incubator feasibility study for the Eastern Shore. The study was conducted by Angle Technology, a firm that specializes in the creation and management of incubators worldwide, and completed in July 2002. The study concluded that a technology-based incubator was feasible for the Eastern Shore. A second study, the Economic Adjustment Strategy, conducted in 2004 came to the same conclusion.

Project Description/Strategy

A technology based incubator was suggested for Dorchester County. Technology focus will be on agriculture science, bioscience, aquaculture, information technology, and environmental science.

Cost

It is estimated that the annual cost of operations will be \$50,000, not including capital provided to incubating companies.

Project Partners

- TEDCO
- DBED
- MSRC
- Chesapeake College
- UMES
- Private Investors
- USDA
- ESEC

Mid Shore Near Equity Fund

Priority Rating - High

Background

Limited financial resources available for supporting startup companies and business expansion are a barrier to economic growth and diversification in the region. With current plans to develop technology incubators and expand business parks, a local source for financing that can complement traditional lenders will be a critical component for business development in the area.

Program Description/Strategy

The Rural Development Center at the University of Maryland Eastern Shore manages a fund that serves the three lower shore counties in the Lower Shore Tri-County Region and Dorchester County in the Mid-Shore Tri-County Region. The Near Equity Fund will cater to the specific needs of the Mid-Shore region.

The Loan Fund makes low interest loans at advantageous terms. Lending priorities are developed by a loan review committee comprised of local bankers, economic development officials and Mid Shore Council members. The review committee also determines the percentage of financing they will loan to the applicants. Administrative tasks for the Loan Fund include monitoring the progress of companies that have received loans and submitting financial reports to our lending partners and supporters.

Cost

The Loan Fund started with loan capital from the Maryland Department of Business and Economic Development (\$100,000 grant) and the USDA Rural Development Office (\$55,000 grant). Currently, the Loan Fund has applied for an USDA Rural Development Intermediary Relending Program (IRP) for \$450,000.

The Loan Fund administrative staff for the first two years has been funded by an EDA grant totaling \$60,000; a TEDCO grant totaling \$20,000; and the three Mid-Shore counties collectively funding \$60,000.

Project Partners

- EDA
- University of Maryland Eastern Shore Rural Development Center
- Chesapeake College Small Business Development Center
- Chesapeake Bay Region Technical Center for Excellence
- Maryland State Department of Business and Economic Development
- Mid Shore Regional Council
- Lower Shore Tri-County Council

Technology Incubation Innovation Fund

Priority Rating - High

Background

Limited financial resources available for supporting startup companies and business expansion are a barrier to economic growth and diversification in the region. With current plans to develop technology incubators and expand business parks, a local source for financing that can complement traditional lenders will be a critical component for business development in the area.

Program Description/Strategy

TEDCO's Technology Incubation Innovation Fund will provide working capital for early stage technology companies affiliated with Maryland's extensive business incubation network. Eligibility will be limited to tenants, affiliates, and graduates of EDA funded technology incubation programs and programs in EDA eligible areas. Non-conventional financing for working capital of \$25,000 - \$50,000 will be made available to an initial 10-20 companies during the two year period of this grant program. There is currently no source of State or federal funding which provides flexible non-equity working capital to incubation stage technology companies.

Over 130 companies and 125 graduates are currently eligible for funding and each year approximately 20 % of incubator tenants' graduate; several other research parks/incubation facilities are under development in Baltimore, and other projects are under study in W. Maryland and the Eastern Shore.

The project will leverage TEDCO's federally funded seed grant and technical assistance funds which have created a State-wide network of business development specialists. (See Map 2)

The Technology Incubation Innovative Fund complements existing EDA-funded capital programs in Western Maryland, the Lower Eastern Shore, and for Defense Economic Adjustment activities. TEDCO currently works with all of the managing entities of these funds, and will include them into a policy oversight committee to encourage collaboration and coordination. Successful execution of the project will demonstrate the benefits of – and mechanism for - an integrated State-regional capital strategy, achieving critical mass in administrative efficiency, deal flow, and portfolio diversification.

Project Partners

- EDA
- University of Maryland Eastern Shore Rural Development Center
- Chesapeake College Small Business Development Center
- Mid Shore Regional Council
- Lower Shore Tri-County Council

Priority Rating - Medium

Background

One of the unique assets of the Eastern Shore, which has not been tapped for economic development, is the large population of high net worth individuals that reside and vacation in the area. Several informal meetings have been held with local angel investors and venture capitalists. They have voiced sincere interest in investing and supporting new technology based/environmentally friendly businesses and requested a venue for identifying investment opportunities.

Project Description/Strategy

Economic development directors, DBED, Regional Councils, the TCE, small business resource centers, and investor groups will publicize the Network. The Rural Development Center and the Regional Councils will serve as collection centers for the applications. An advisory committee consisting of local bankers, investors and economic development professionals will screen applicants. If selected by the screening committee, companies will have five minutes to present their investment opportunity via a live, interactive broadcast and streaming video on the web. Qualified investors around the Shore will have access to the show via a secure website or the State telecommunications network.

Goals

- Link rural companies with qualified private investors
- Increase private investment and business development on the Eastern Shore
- Diversify the regional economy
- Foster the growth of high tech environmentally friendly industry clusters and create living wage jobs

Cost

Existing resources available through the local colleges, State communications networks, public access channels and regional councils will be leveraged to launch the project with minimal cost. As the program matures some financial assistance will be needed for production and overhead costs.

Project Partners

- EDA
- Private Investors
- University of Maryland Eastern Shore Rural Development Center
- Chesapeake College SBDC
- DBED
- Mid Shore Regional Council
- Lower Shore Tri-County Council

- Chesapeake Bay Region Center for Technical Excellence
- Local banks

Co-Working Initiative – hotDesks

Priority Rating – Medium

Background

Working from home seems like a good idea at first to most entrepreneurs and startup business owners; a 30-second commute and no overhead sound very appealing. But after a short while the reality of working in isolation while trying to present a professional appearance from home begins to set in. Distractions from noisy pets to active children begin to impose on one's ability to get things done. The absence of a professional business setting where one can interact with peers can lead to creative blocks and tunnel vision.



Purpose

Eastern Shore Entrepreneurship Center (ESEC) proposes to establish a network of Co-working Spaces across Maryland's Eastern Shore where participating members can work, meet with clients, access professional and technical resources – and communicate with like-minded peers. Whether they are a solopreneur, a consultant, a virtual assistance or project manager, or an executive visiting from out of town (for a company or a nonprofit), the Co-working Spaces available at hotDesks will be just the place they've been looking for; to get things done.

The culture of hotDesks will be based on the belief that people drive progress through critical connections and an idea only gets you about 10% of the way, while 90% is in the execution and the network.

As part of developing an overall Entrepreneurial Ecosystem on the Eastern Shore, hotDesks will serve as a stepping stone to the development of other regional initiatives; such as incubators, accelerators, etc. that together will aid in the creation of a burgeoning and significant economic engine for the region.

Project Description

Initial hotDesks locations are planned to be in two strategically placed locations throughout the Eastern Shore during 2012 and 2013; Easton and Salisbury. Additional Centers can be added as interest dictates (i.e. Berlin and Cambridge). The first locations planned will be located in Salisbury (within the Tri-County Council of the Lower Shore's (TCCLS) new facility on Route 50 and Walston Switch Road, consisting of a 1,600 square foot area in the front of the building) and Easton. Each facility will have a secure access card-entry system as well as a digital video surveillance system which will record who enters and utilizes the facility.

Each space will consist of the following:

- Open plan office areas or Work Studio (with partitions and partition walls used only in moderation)
- Walls blanketed with whiteboards

- A gathering area with comfortable furniture
- Provide users the availability of a mailing address and mailbox for mail and package delivery
- Provide reliable high speed internet
- Provide cell phone signal booster to insure quality reception
- Availability for land-line phone service (at user's additional expense)
- Provide access to a printer, scanner, copier, fax, and shredder
- Conference room(s) and a lounge area to meet with clients (with telephone conference and video/web conference availability, white boards, flip charts, digital projector)
- Provide access to kitchenette or cafeteria (unlimited coffee, water, popcorn)
- Provide access to Virtual Local Area Network (VLAN) service
- Provide access to Voice Over Internet Phone (VOIP) service

Project Partners:

- Talbot County
- Maryland Department of Business and Economic Development (DBED)
- Economic Development Administration (EDA)
- Eastern Shore Entrepreneurship Center
- Easton Utilities
- Mid-Shore Regional Council
- Tri-County Council for the Lower Eastern Shore of Maryland

Project Cost: \$50,000

Agriculture, Aquaculture and Forestry

Chicken Feather Processing

Priority Rating – High

Background

The production and processing of chickens is the number one agricultural activity of the Mid Shore. Not only does the sale of chicken products generate direct value to the regional economy, chickens consume the majority of crops grown in the region as feed. A viable chicken industry is vital to the economy of the Mid Shore and the surrounding region. The processing of chickens generates many by-products besides the various meat options. Creating value for these by-products improves the bottom line of the industry. One of the major by-products is feathers - nearly 200 million pounds on Delmarva annually. A variety of potential uses have been found for feathers. However, currently, the primary use in this region is as a source of protein for animal feed, while in other areas feathers must be disposed of in landfills. Developing alternative uses and markets for feathers may be critical to the poultry industry as it is anticipated that the Food and Drug Administration (FDA) will issue rules restricting their use as an ingredient in chicken feed similar to actions taken for cattle relative to BSE (mad cow disease).

Project Description/Strategy

USDA BARC has been exploring new higher value uses for the feathers. One promising application is in the creation of bio-degradable products such as horticultural containers and agricultural film from pellets derived from processed feathers. The process, which is being researched but not yet commercially developed, consists of transporting the contaminated wet feathers from the chicken processing plant to the feather processing plant. There the feathers may be separated from non-feather material and washed depending on their final use. The feathers are then dried and ground. A plasticizer is added and the feather material is fed into an extruder which produces pellets ready for injection molding in standard machines which currently produce petroleum-based plastic pots and film which are not bio-degradable. It is estimated that the production of horticultural containers is currently an \$800 million industry in the U.S.

Cost

This project will require some in-kind costs and, possibly, additional research funding. Once a viable process is defined plant funding will be determined.

Project Partners

- Mid-Shore Regional Council
- Caroline, Dorchester, and Talbot Counties
- CBRTCE
- Horticultural Research Institute
- Turf Bio-Net Research Group
- Maryland Department of Agriculture
- USDA / BARC and RD
- DBED

- Delmarva Poultry Industries
- TEDCO

Development of the “Tilghman Island Discovery Park”

Priority Rating – High

Background and Purpose

“Tilghman Island Discovery Park” will be created to promote regional economic and community development and will include an integrated aquaculture operation, a revitalized seafood market, and an education center to support aquaculture and environment programs. Led by the nonprofit, Philips Wharf Environmental Center, the project is intended to include collaboration with the Tilghman Area Youth Association, and the Tilghman Watermen’s Museum. The Hooper’s Island Oyster Aquaculture Company founders Ricky Fitzhugh and John Shockley have expressed interest in the aquaculture training of watermen as a component of this project.



Established in 2005, Philips Wharf Environmental Center (PWEC) is dedicated to education, specializing in hands on learning with animals and plants that live in the Bay and their impact on the environment. PWEC’s commitment to direct personal involvement in activities that can impact the Chesapeake Bay is embodied in its motto: “Cherish the Chesapeake – Inform, Inspire, Involve . . .” PWEC has demonstrated the capacity to perform this work through many partnerships including working with the Maryland DNR to teach the community to nurture oysters under their piers. PWEC has also planted 200 additional canopy trees on the island, and installed a demonstration buffer garden for conservation landscaping. The PWEC Fish Mobile makes the rounds to area schools and centers teaching children environmental stewardship. PWEC has operated with a modest budget of donations from the community and volunteer staff. With the recent acquisition of the Harrison Oyster House, located at the Narrows in Tilghman, the PWEC is poised to make a major step forward, with the creation of the Tilghman Island Discovery Park.

Project Description

PWEC has completed a 12 month study period and secured funds for the purchase of the Harrison Oyster Company property located beside the iconic Tilghman Bridge as a “gateway” location for Tilghman Island Discovery Park. This 2¼-acre site will provide an ideal location to accomplish several vital objectives:

- Create a new visitor destination, add jobs, and boost the local economy
- Establish a dockside market for buying and selling fresh local seafood
- Assist watermen with aquaculture best practices and explore new sources of income



- Become a strategic partner in the network of Chesapeake Bay environmental organizations with a learning center, expanded collection of live animal exhibits, and conservation landscape demonstration gardens

These programs will be available to those living and working in the nine counties of the Eastern Shore of Maryland (Kent, Cecil, Queen Anne's, Talbot, Caroline, Dorchester, Wicomico, Worcester, and Somerset), as well as visitors.

PWEC is launching a capital funding program for \$1.5 million and has received approval from the Maryland Department for Housing and Community Development for an allocation of tax credits for business entities that contribute to the Project under the Department's Community Investment Tax Credit Program.

The \$1.5 million project includes funds for the purchase and renovation or rebuilding of existing structures and dock infrastructure of the Oyster House to host four program elements: (1) environmental education, (2) aquaculture operation, (3) seafood market and (4) conservation education. Program requirements will be met by facilities that include space for a laboratory, classrooms, exhibits, and a working seafood market.

The Aquaculture program will sponsor and train watermen to transition to oyster aquaculture by providing business start up support along with a modern facility to set oyster spat, clean and bag shell, and teach floating and bottom cage culture techniques. Techniques for growing other potentially economically valuable species will be tested and taught with support from DNR, NOAA and UM Horn Point Environmental Center. Interest in partnering with Hooper's Island Oyster Company is being explored to reach watermen throughout the Chesapeake Bay Region.

The former Harrison Oyster House has operated as a seafood distribution center for the region. To continue this tradition, the facility will require dock and building renovation to expand for sales of local watermen's catch to regional wholesale and retail markets.

The proposed site is located in the critical area, and must meet multiple county, state, and federal permit requirements. The infrastructure design and engineering will include the assessment of existing structures and their ability to meet program requirements while also meeting Federal, State, and Local permit requirements.

Tilghman Island Discovery Park will operate with aquaculture and seafood market businesses to create jobs. These operations will be integrated with water and land based environmental programs to continue the education mission of PWEC. Business plans for each program element have been developed under the leadership of the PWEC Board, a 9 member board of community and professional volunteers. The project is expected to generate 15 to 20 jobs with the initial phase of completion and provide retention of 70 watermen in the region who currently make their living harvesting oysters.

Current/Planned Project Partners:

- Mid-Shore Regional Council
- University of Maryland Extension Office

- Talbot County Waterman's Association
- Talbot County Chamber of Commerce
- Chesapeake Bay Trust; Chesapeake Bay Foundation, National Fish and Wildlife Foundation – Chesapeake Bay Program, Chesapeake Wildlife Heritage, Chesapeake Bay Program, and the Chesapeake Bay Ecology Center Environmental Concerns
- Eastern Shore Land Conservancy
- Maryland Department of Housing and Community Development
- Maryland Agriculture Resource Business Development Corporation
- NOAA Cooperative Oxford Laboratory
- USDA
- Hooper's Island Oyster Aquaculture Company

Project Cost: \$750,000 as match for project implementation with \$50,000 for professional services required for the infrastructure design and engineering of Tilghman Island Discovery Park

Project Time Period: 24 months

Continuous Learning and Workforce Development

Priority Rating – Medium

Background

In 2000, the Denton Development Corporation completed a conceptual plan for rehabilitation and adaptive use of the old “Caroline High School” in the Town of Denton as part of an economic development project designed to preserve and enhance the historic Denton Central Business District. The Denton Development Corporation worked in partnership with the Town of Denton to acquire the building in the spring of 2005. Since the acquisition, the Town of Denton and Denton Development Corporation have been working with the Chesapeake Culinary Center (CCC), a non-profit organization, to rehabilitate the structure as a hospitality workforce training facility, kitchen incubator, and performing arts venue.

The Culinary Center is a grassroots, non-profit organization staffed by hospitality professionals and governed by a Board of Directors. The organization began in 2005 and was responsible for starting the culinary arts program at the Caroline County Career and Technology Center. The Culinary Center also runs a public restaurant, the Emerson House, in Denton. This facility conducts vocational training for clients of Social Services and an after school program for high school students. The Culinary Center also does offsite training for Workforce Investment Board’s youth program, teaching the basics of culinary skills. The Culinary Center also works with the James Beard Foundation to offer elementary aged students a program called Spoons Across America, which teaches students how to plan a dinner party from A-Z; including instruction on table manners, properly setting a table, how to plan nutritional meals and snacks, and the value of eating at the table with family. Once the old “Caroline High School” is complete, all operations of CCC will be moved into the facility.

The potential use of the Caroline High School for the food service industry may be critical to regional historic area tourism. The rehabilitation of this structure will also foster linkages with other places of interest in the Denton Historic District. It is anticipated that the schoolhouse will become a cornerstone for other heritage area attractions in Denton and the surrounding area.

The old “Caroline High School,” constructed in 1901, is located in the Town of Denton’s National Register Historic District. This structure represents the rural adaptation of architectural styles of the late 19th and early 20th centuries and in particular the period from 1895 to 1915. The old “Caroline High School” is one of the oldest public structures in Caroline County and the 1.35 acre property is also one of the largest open spaces in Denton.

Purpose

This project will provide the midshore region with a professionally trained hospitality workforce, an increase in tourism, and a performing and visual arts venue. Further, the project will also foster the creation of new businesses and assist farmers in creating value-added products. It is envisioned that this structure will be rehabilitated to a standard of contemporary utility while preserving features which are significant to the historical, architectural, and culture values of Maryland’s Eastern Shore community.

Project Description

The building will provide training space for the Caroline and Queen Anne's County Boards of Education's culinary programs, and house a commercial incubator program which will provide small business entrepreneurs and farmers the ability to produce products in a health-approved commercial kitchen, and will provide a small bottling facility. The Culinary Center will continue to provide after school and summer courses for youth in addition to vocational training for clients of Social Services (Caroline, Dorchester, Talbot and Queen Anne's) and local Work Force Investment Boards in the midshore area. The third floor of the building will house a small performing arts center as well as space for visual arts. This project has the potential to create 12 fulltime jobs and 15-20 part-time positions; seven of which would be made available to low- and moderate-income individuals.

The old "Caroline High School" will house many different programs. The scope of the project is as follows:

1. Caroline and Queen Anne's County Boards of Education culinary programs allowing 60-80 students at a time. Caroline is currently operating out of the local fire department's kitchen, which is limited in equipment. Queen Anne's currently does not have a culinary arts program at its Career and Technology Center.
2. Partnering with Chesapeake College to offer night programs for their hospitality program, allowing up to 160 students a year.
3. After school program for at-risk students, up to 120 students a year.
4. Community kitchen expected to create and expand 15-20 businesses a year.
5. Bottling facility anticipated to serve 50 to 100 customers/ farmers a year.
6. Kid's camps during the summer expected to serve 60 youth between the ages of 5 and 17.
7. Adult continuing education classes expected to serve 70-100 adults a year.
8. Performing arts center that will be able to hold 100-150 persons at time.
9. Fourteen art studio spaces will be available to rent by local artists.
10. Art and music classes offered, expected to serve 150-200 people a year.

Cost

The estimated capital costs needed to redevelop the old "Caroline High School" is \$2,415,000 for Phase I of the project. Phase I includes remediation of hazardous waste, restoration of the existing building, and the construction of the addition that will house the training kitchen, bottling facility, performing arts center, and classrooms. To date, \$1.1 million has been secured through funding sources, including the Community Development Block Grant Program, the Maryland Historical Trust, USDA, Maryland State Bond Bill, Caroline County, and the Town of Denton. Partnerships are beginning to develop with private foundations and individuals for other funding sources. The project is in need of \$1.3 million at this time for completion of Phase I.

Project Partners

- Town of Denton

- Denton Development Corporation
- Chesapeake Culinary Center
- Caroline County Board of Education
- Caroline County Government
- Maryland Department of Housing and Community Development
- United States Department of Agriculture
- Maryland Historical Trust

Program Partners

- Upper Shore Workforce Investment Board
- Caroline County Recreation and Parks
- Chesapeake College
- Caroline and Queen Anne's Boards of Education
- Social Services of Caroline, Talbot, Queen Anne's and Dorchester

Preparing a High-Tech Workforce for the Eastern Shore and Maryland

Priority Rating – High

Background

With the rapid expansion of technology and the information-based economy, there is an ever-increasing need for a skilled workforce from the science, technology, engineering and mathematics (STEM) disciplines. Nationallyⁱ and locally,ⁱⁱ the supply of skilled labor is not keeping pace with demand. Additionally, well educated technology entrepreneurs are needed to move more traditional agricultural economies to emerging technology/information-based industries. In order to prevent loss of leadership and skilled workers in critical areas of technology and manufacturing, industry and government agencies need talented graduates from our educational institutions who can “hit the ground running.” Further, the lack of highly qualified science and math teachers limits the pipeline of students who are prepared for rigorous STEM majors and careers in technology-related fields and science entrepreneurship. Thus, in order for the Eastern Shore and Maryland to compete in a technology-based economy, we need to increase the quantity and quality of our high-tech workforce and the educational infrastructure supporting this goal. This situation is well described in ‘Investing in STEM to Secure Maryland’s Future,’ the recent report of Governor O’Malley’s STEM Taskforce.ⁱⁱⁱ

Purpose

This project will address the shortage of technology workers and entrepreneurs created by increasing regional demand, aging of existing workforce and insufficient numbers of students pursuing and prepared for rigorous STEM majors in college. This is particularly relevant for our area given the actual and desired job growth within the state and on the Eastern Shore.

This project will establish a regional workforce pipeline that provides students with knowledge and skills relevant to a technology-based economy and to the growth of such industries. As a result of these efforts, it is anticipated that well prepared college graduates with STEM majors will be employed by and establish their own technology-related companies. The project can be expanded into a regional effort to ensure that Eastern Shore residents can get a good education in technology and become part of a state-wide high-tech workforce, without ever having to leave the area.

Project Description

To build a high-tech workforce and a culture of technology entrepreneurship, we need to: 1) get youth interested in pursuing careers in technology-related industries; 2) ensure that educational institutions (Middle School through College) are aware of and have the tools to provide curricula relevant to current and future industry and government needs; and 3) expose students to real-world experiences (and contact with prospective employers) throughout their educational careers. Additionally, in the near future, students will increasingly come from ‘under-represented groups’ that, by definition, have not historically had high rates of college-going or degree attainment.

The contribution of this proposed project will be to design and implement innovative linkages between educational and experiential mechanisms to engage students in middle school and which carry them through to college and into the workforce. In addition, this project will support a critical,

near-term need for expertise in the areas of computer science, engineering, and geographic information systems (GIS) via a novel university program that will utilize unique seminars and facilities to augment existing degree programs.

We propose two major tasks to develop a workforce prepared for science/technology jobs in the near-term and to create an environment that supports the flow of students into the STEM disciplines and out into the workforce:

Task 1: Increase enrollments of science and math majors and preparation of college graduates for applied STEM careers, including careers in teaching math and science at the secondary level:

The program will address three challenges in the recruitment and preparation of a high-tech workforce by: 1) creating clearer connections between science/technology majors and rewarding and lucrative careers in the region, including the teaching of science and mathematics; 2) providing financial, social and academic supports for college students who choose rigorous STEM majors; and 3) equipping students with workforce skills not typically included in standard STEM curricula. The program will have three major activities: 1) 'deep recruitment' of regional students into STEM majors through strong connections with local schools and community colleges (see Task 2 below) and scholarships and other incentives for qualified students; 2) college-support programs for STEM and science/math secondary education majors such as first-year seminars and Living-Learning Communities;^{iv} 3) clearer and better supported paths from community college to SU science majors, and 4) the development of seminars, research and internship experiences that prepare students for STEM careers by introducing them to the regional high-tech workforce and to topics not typically covered in undergraduate science curricula (e.g. error and risk-analysis, quality assurance, compliance, organizational effectiveness, project management, security clearances, or effective networking). To support this, we will leverage Salisbury University's STEM Advisory Board which includes representation from Eastern Shore school districts, employers, economic development agencies, and SU faculty and administrators and an cadre of outstanding math and science teachers from the region who can serve as role models for science and math students considering secondary teaching as a career.

Task 2: Establish organizational and financial support for engaging future STEM workers and entrepreneurs.

This can be achieved by creating a standing program team, through execution of Memoranda of Agreement, with representatives from schools and other educational institutions, industry and local, state, and federal government entities to design an on-going program that attracts and retains middle- and high-school students to STEM careers. Activities could include support for SU support of STEM programs within school districts (e.g. STEM Academies, Lego Leagues, etc.), Science Camp@SU, and/or Science Nights at SU. We will also leverage existing relationships with regional community colleges (e.g. Chesapeake College and Wor-Wic) with whom we have had several collaborations in the past (e.g. the nationally recognized Quality in Undergraduate Education^v program that aligned the Associate of Arts degrees at Chesapeake and Wor-Wic with baccalaureate degrees at Salisbury University). Further, we will recruit program sponsors from industry and government to more clearly connect academic achievement to rewarding and lucrative careers in the region.

Need for the proposed projects: Regarding science/biotechnology, space science, information sciences and innovation-based fields: Maryland leads the nation in per capita expenditures in research and development (R&D) and is second only to California in total R&D expenditures. Throughout the state, there is a strong interest in not just producing the intellectual property associated with this R&D, but to establish businesses and industries within Maryland from this R&D.

Further, Maryland expects many high-tech jobs as a result of the Base Realignment and Closure Process (BRAC) with 18,000 jobs expected to become available in Maryland as many defense information-related agencies relocate and as demand builds for supporting agencies. Similarly, developments in the space launch industry are expected to positively impact job creation throughout the region^{vi} and to demand the preparation of a high-tech workforce. To meet this demand, we need to increase the number of STEM graduates, particularly in the areas of computer science, chemistry, biology, physics, GIS, and engineering. Other concerns exist about the demography of the high-tech workforce, which includes 'baby-boomers' approaching retirement and a demographic shift within the college-age population in which the fastest growing segment now includes groups that have traditionally had lower rates of college attendance.

Regarding science/math teacher education: The Maryland Teacher Staffing Report 2008-2010^{vii} published by the Maryland State Board of Education (Section VII) notes Mathematics, Chemistry, Earth/Space Science, Physical Science, and Physics (grades 7-12) as critical content shortage areas. The Report also declares all Maryland counties as areas of projected shortages of certified teachers (so includes counties in Mid Shore Region).

Estimated project cost: \$2 million

Estimated time line: 6 years

Additional STEM and Science and Math Secondary Ed. Graduates within 5 years: 150

Project Partners

- Henson School of Science and Technology at Salisbury University
- Seidel School of Education at Salisbury University
- Eastern Shore Regional GIS Cooperative
- Chesapeake College
- Wor-Wic Community College
- Regional Tech Industry Partners (to be identified)
- Regional Middle and High School Partners (Maryland Eastern Shore counties are members of Salisbury University's STEM Advisory Board).

ⁱ*Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future* available at http://www.nap.edu/catalog.php?record_id=11463.

ⁱⁱFor example, see discussions at <http://mdworkforce.com/biotech/bioscisumagenda.htm> and <http://www.msde.md.gov/MSDE/programs/stem/>.

ⁱⁱⁱGovernor's STEM Task Force. (2009) Investing in STEM to Secure Maryland's Future. <http://www.gov.state.md.us/documents/090806stemReport.pdf>.

^{iv}Living-Learning Communities form strong social supports for students pursuing rigorous coursework through shared living spaces (same floor of a residence hall) and common courses. They can be powerful tools for retaining students in college, especially those at 'risk for leaving' such as those who are the first in their families to attend university.

^vProgram description electronically available at <http://www.salisbury.edu/que/>.

^{vi}<http://www.marsspaceport.com/pdfs/MDgov.pdf>

^{vii}Electronically available at <http://marylandpublicschools.org/NR/rdonlyres/F3F5D904-0F5E-4FC7-87CE-464FC17DABB5/18552/MarylandTeacherStaffingReport20082010.pdf>.

Center for Leadership in Environmental Education (CLEEn)

Priority Rating – High

Background

Chesapeake College plans the development and construction of a wind and solar education facility, the Center for Leadership in Environmental Education (CLEEn), at its Wye Mills (MD) campus which will model emerging renewable energy technologies while expanding education and training opportunities for students and small businesses. A leader in energy conservation and sustainability initiatives, Chesapeake College continues to demonstrate with this proposed facility its commitment to environmental sustainability as a global and regional responsibility, and to enhancing economic development on the Eastern Shore of Maryland.

The US Department of Labor, in its March 2007 report Identifying and Addressing Workforce Challenges in America's Energy Industry, identified challenges facing the energy industry including that half of the current industry workers will retire in the next 5 to 10 years; the reduction or elimination of many training programs during the energy downturn of the 1980's and 1990's, programs that have not been expanded as the industry rebounds; and the need for energy industry workers who are more proficient than predecessors in math, science and technology skills. This last challenge in particular makes community colleges the ideal location for combining traditional higher education curriculum with emerging technologies demonstration and training. Chesapeake College is poised to fill this need on the upper shore with the CLEEn project.

Description

Chesapeake College proposes to construct a stand-alone facility that will utilize state-of-the-art wind, solar, and geothermal power-generating technologies. The 4,000 square foot facility will house two classrooms, a visitor/learning center, space for passive instructional displays, an outdoor classroom, and offer the opportunity for hands-on learning access to the mechanical, electrical, and solar elements of the building's operations. The footprint of the building as designed includes the possible addition of two classrooms.

The completed facility will host a 30-50KW wind turbine specially designed for regional wind speeds, mounted to a 140 foot monotower and integrated with the campus electrical supply. The turbine is sited close to US Route 50 in order to encourage public interest. The solar array will include both photovoltaic electrical generation panels and solar hot water panels. Water will be supplied by an existing well adjacent to the building, sewer connections will be made to the College's own wastewater treatment plant, and an additional twenty parking spaces will be added to an existing parking lot close to the facility. The proposed building design anticipates LEED Gold/Platinum standards, and will be fully self-sufficient, producing at least as much and possibly more than, the power it consumes.

Purpose

CLEEn will be used to recruit, train, and educate students for work in the emerging fields of wind and solar power generation, with emphases on planning, installing, and maintaining structures for both commercial and residential applications. Initially, the College anticipates students will be drawn through continuing education courses and via applicable industry training courses. Additionally, middle and high school students throughout the five county service area (and other regions of the Eastern Shore) will be invited to visit the facility as a field trip experience. The development of resource materials related to the learning experiences at the facility, and the creation of distance learning events, are also possible. The College will work toward certification of educational programs offered through the facility so that interested students may obtain the industry credentials necessary to successful job seeking in these green technologies.

In partnership with local governments in the five county College service area, secondary school systems, other colleges, state and federal agencies, and the business community, Chesapeake College will promote CLEEn as a community resource for green business development, training and learning. Chesapeake College has an approved degree in environmental sciences and in collaboration with other bay area colleges, offers students opportunities for related, specialized degrees. Courses in wind power, solar, geothermal and electrical systems, have been offered by the division of continuing education and workforce training. CLEEn will allow the College to expand these programs and to design hands-on experiences to compliment the new K-12 Maryland State Board of Education requirement in environmental science.

Additionally, the College anticipates a continuing partnership with the commercial and industrial community for use of the facility to train incumbent and new workers in emerging green technologies. Key to student enrollment in both training and curriculum will be the potential for jobs on completion of certificate or degree programs. The College anticipates its partnership with the Upper Shore Manufacturing and Business Council to be an avenue for identifying and addressing industry needs that will allow for education programming targeted to potential jobs. The Upper Shore Workforce Investment Board, located at Chesapeake College, will use its "Green Navigator," funded by the Maryland Department of Labor and Licensing, to identify and direct trained workers to potential employers and jobs in the region.

Cost

Estimated cost: \$3 million. These elements comprise significant project costs: facility (\$1.9 million), energy components (\$341,900), furniture, fixtures and equipment (\$250,000), and curriculum (\$525,000). Chesapeake College will contribute the land for siting the facility and on-going maintenance. The College will also expand the parking lot nearest to the CLEEn building in anticipation of increased attendance.

Estimated completion timeline: 2 years. The College anticipates a phased implementation as it develops project resources. Phase I will be the installation of the energy components (wind turbine and ground level solar panels), allowing an immediate impact to the campus power grid, and providing a visual appeal that will help generate interest and bring resources to the project.

Summary

As both a power-generating tool and a teaching tool, the Center for Leadership in Environmental Education enhances the College's vision of optimal experiences for its students, while supporting the Maryland Governor's education priority of expanding "the opportunity to learn and to earn;and to enjoy the health of the environment we love – to more people rather than fewer."

Course enrollment, degrees granted, placement of incumbent and new workers, educational tours by visiting students and the general public, will all be used as measures for evaluating the impact of the Center for Leadership in Environmental Education on the community at large. Most important, green jobs attained by trained workers will support the goals of CLEEn and the Governor's *Smart, Green and Growing* agenda which targets 100,000 new green jobs in Maryland by 2015.

The Maryland Energy Outlook 2010 prepared by the Maryland Energy Administration, reports that the Governor's Workforce Investment Board estimates that Maryland's green economy includes roughly 22,000 businesses directly employing nearly 250,000 people and generating wages of about \$14 billion. Data from the US Department of Labor indicates that energy industry average wages for workers with some college can range from \$17 to \$33 per hour, estimates that are significantly above minimum wage and which would represent a good living wage for the Eastern Shore. The CLEEn curriculum will support the training and certification(s) necessary to prepare students for these jobs.

Project Partners

- K-12 Public School Systems in Kent, Queen Anne's, Caroline, Dorchester and Talbot Counties
- Maryland Energy Administration
- HordCoplanMacht (design team)
- Gipe Associates (design team)
- DMS Associates (design team)
- Fluharty's Electric (design team)
- Maryland Clean Energy Center
- US Senator Benjamin S. Cardin
- Atlantic Tractor
- Chesapeake College Foundation
- Maryland Environmental Service
- Upper Shore Workforce Investment Board
- Local governments in Kent, Queen Anne's, Talbot, Dorchester and Caroline Counties (Proposed Project Partner)
- Chesapeake College Student Government Association
- Maryland Higher Education Commission
- Maryland Association of Community Colleges
- Mid-Shore Regional Council (Proposed Project Partner)
- Upper Shore Regional Council (anticipated)
- Town Creek Foundation (anticipated)
- Pepco Holdings/Delmarva Power (anticipated)
- Choptank Electric Cooperative (anticipated)

Tech Transfer – Delmarva Technology Transfer Initiative (DT2i)

Priority Rating – Medium

Background

In response to an increased need for job growth and business expansion in the region, while at the same time meeting the purpose and mission of area community colleges, a collaborative effort has begun in developing a common technology transfer course(s) and program to be offered at each of the community colleges throughout the Delmarva Peninsula. Through the efficient leverage of existing resources combined with the joint solicitation of additional resources, each community college will work to promote and expand an understanding of technology transfer among manufacturers and entrepreneurs with the offering of one or more courses that will teach necessary skill sets in technology transfer.



Purpose

The purpose of the initiative is for community colleges to jointly work together in pursuit of a technology transfer initiative are as follows:

1. To more efficiently develop the initiative through existing resources that each Party will contribute;
2. To more successfully solicit and obtain grant funding from Federal, State, and local sources based upon the multi-state region represented by each of the Parties on the Delmarva Peninsula;
3. To better develop a sustainable initiative that will benefit each of the Parties for years to come;
4. To better coordinate the participation and resources of the private sector throughout the region.

Project Description

The Delmarva Tech Transfer Initiative (DT2i) is a partnership of four community colleges from throughout the Delmarva Peninsula and the Eastern Shore Entrepreneurship Center. The DT2i partnership is promoting the potential of tech transfer and advanced manufacturing to the region's manufacturers and entrepreneurs. In concert with a course initiative, DT2i is working with regional economic development councils and the business community to help implement and then measure the impact of tech transfer on job creation and retention throughout the three-state region. The partnership will introduce tech transfer through a series of public symposiums, followed by a pilot tech transfer course offered at Wor-Wic Community College. DT2i will subsequently refine the curriculum and develop the delivery of the course at each of the four community colleges, meeting the needs of their respective audiences.

Project Partners

- Chesapeake College
- Delaware Technical Community College
- Eastern Shore Community College of Virginia

- Wor-Wic Community College
- Maryland Technology Development Corporation (TEDCO)
- Economic Development Administration (EDA)
- Eastern Shore Entrepreneurship Center
- Federal Lab Consortium (FLC)

Project Cost: \$60,000

Preparing Applicants for Utility Line Mechanic Careers on the Eastern Shore and Beyond

Priority Rating – Medium

Background

Maryland's utility work force is at risk from two interrelated problems: impending retirement of a large proportion of existing workers, and difficulty keeping qualified trainees in in-house training programs. According to an initial needs assessment, up to 40% of some utilities' workforces are currently eligible for retirement. The utility industry also has difficulty recruiting Marylanders into in-house training programs and retaining them in line mechanics' positions. Data from utility companies indicate that up to 70% of applicants are unable to assume trainee positions and are effectively prohibited from careers in utility line work. Preliminary needs assessment, conducted by the Chesapeake College Center for Leadership in Environmental Education (CLEEn) in cooperation with Maryland Energy Administration, indicates that this set of interrelated problems exists for local utilities, including Easton Utilities, Choptank Electric Co-Operative, and Delmarva Power, and for western-shore utilities, including Pepco and BGE. All of the named utilities have agreed to cooperate with CLEEn on solving the problem of recruitment and training.



Purpose

Chesapeake College CLEEn, in cooperation with the college's Division of Continuing Education and Workforce Training (CEWT), is planning the development of programs to help the needs of persons applying for utility line mechanic positions. The principal needs of those applicants include better academic skills in reading and mathematics, and physical training to prepare for climbing utility poles and lifting heavy loads during training. CLEEn and CEWT must identify, or develop, training materials to meet academic needs, and identify training facilities to prepare applicants for pole climbing and industry safety practices.

Project Description

The project proposed here has four principal goals:

- 1) Identification and/or development of academic training programs: Successful applicants and trainees for utility line work must have strong academic skills – equivalent to a 10th-grade level or higher – in basic mathematics, reading comprehension, and written communications. This level of skill is demanded by in-house utility training programs and by programs that offer necessary credentials. Some industry curricula exist to help meet these needs; a principal goal of the project proposed here is to identify appropriate curricular materials, develop other reinforcing material where necessary, and plan for delivery of those learning experiences.
- 2) Identification of a physical training facility and development of physical training protocols: Applicants for utility line work must also be in good physical condition, and be tolerant of the risks

inherent in line work, including risks associated with working at heights and working with high-voltage electricity. One utility industry partner demands that applicants be able to climb a utility pole and lift equipment to the top of the pole before being employed as a trainee. Many, if not most, applicants have difficulty with the physical demands of the position. A principal goal of this proposed project is to identify at least one training facility that students in the program can use to learn the skills necessary to enter, and persist in, utility training programs. Concurrently, CLEEn and CEWT will need to identify, and/or develop, training protocols to use at that facility.

- 3) Identify job skills that add value to utility line work employees: In addition to English, math, and physical job skills, applicants for line work can enhance their skill set in several ways that make them stronger assets to the utility work force. Attainment of a CDL drivers' license is a concrete asset to line mechanics, as is ASTCC traffic-flagger training, first aid training, and basic electrical safety. Furthermore, advancement within utility career pathways requires facility with desktop computers and electronic communication. A third goal of this project is to develop a comprehensive list of these needs, and to determine which programs already exist to meet them, and which need development.
- 4) Preparation of a grant application for Spring 2014: once needs assessment has been performed, and curricular materials identified or targeted for development, we will identify other grant sources that will support the development and delivery of the utility line mechanics' career-preparation program. , These potential funding sources will include, but will not be limited to, the EARN Maryland program.

Need for the proposed project: Currently, utility training programs eliminate up to 70% of potential employees from utility line work careers, not because of technical skills needs, but because applicants lack basic academic skills. Incidental data from the utility partners indicate that some successful applicants are graduates of out-of-state training colleges in Georgia, Ohio, or California. These programs are costly – in the tens of thousands of dollars per student – and require great personal investment, both in time and money, for students. Furthermore, the current lack of a training pathway in Maryland makes state residents less competitive for utility line work careers in their home state.

The program proposed here will be the first program of its type on the Eastern Shore, the first program in the state to meet both academic and physical skills training needs, and will fill a statewide need. Long-term benefits of the program include increased stability and reliability of electrical supply, better ability to respond to storms and other disturbances, and the placement of Marylanders in stable, long-term, rewarding careers.

Anticipated Cost: \$10,000 to accommodate travel and consulting fees during the needs-assessment and grant-writing processes.

Project Partners:

- Baltimore Gas & Electric

- Chesapeake College CLEEn
- Chesapeake College Division of Continuing Education and Workforce Training
- Choptank Electric Cooperative
- Delmarva Power
- Easton Utilities
- Maryland Energy Administration
- Pepco



Priority Ranking – Medium

Background

The Chesapeake Bay and its tributaries boast the longest shoreline in the continental US. The Bay is world renowned for being a “sailor’s paradise” and boasts being the boating capitol of the US. There are over 200,000 registered vessels, and according to the National Marine Manufacturers Association’s 2013 survey the state has 178,753 recreational boats. Over 1,043 recreational boating industry businesses generate \$1 billion in spending and create approximately 19,477 jobs.

The vision for the Chesapeake Marine Trades Academy (CMTA) is to offer skills training to students seeking employment in the maritime trades, as well as offer classes for those individuals interested in obtaining professional certifications for recreational boating or the commercial marine industry. Currently, the workforce serving this industry sector is an aging workforce impacting the viability and overall economic health of the industry.

Jobs in the recreational marine sector are centered among boat services, marinas, and boat building businesses. These jobs include engine repair, rigging, fiberglass repair/hull manufacturing, boat related designs, woodworking, yacht brokerages/boat sales, metal working, chartering, marinas, docking services and support services. Many of these jobs include construction related occupations such as carpenters, engine mechanics, welders, painters, electricians, marine architects, and project managers. (Source: Skills Gap Analysis: Prepared for Marine Trades Association of Maryland. Charles Petrocci, March 2014)

According to a study conducted by the National Marine Manufacturers Association (NMMA) and the Recreational Marine Research Center At Michigan State University, Maryland’s congressional district 1 has 49,776 recreational boats, 343 recreational boating related businesses; a total of 5,394 jobs and an annual recreational boating related spending of \$280.6 million. The largest sector contains 75 boat service businesses employing 1,410 workers and creates \$337 million in annual recreational boating-related spending. These 343 recreational boating related businesses can be separated into two categories: direct marine businesses and indirect marine businesses. Direct marine businesses include boat repair, marinas, boat building, boat dealers, marine machinery, equipment and supply merchants, recreational goods and supplies sales, navigation services, vessel transportation, boat rentals, chartering, boat clubs, tourism by boating, boating instruction schools and boat storage. Indirect marine businesses include fiberglass and resin supplies, paints, coatings and adhesives, canvas and ropes, wood products, fabricated metals, plastic products, design services, industry publishing, boat transportation, trucking, diving and salvage, electronic repairs, engine repair, maintenance, and legal services.

In Caroline, Queen Anne's, Talbot, Dorchester, and Wicomico Counties, there are approximately 74 marinas and/or boatyards, yet, there is a critical shortage of skilled marine tradesmen. In order to assess marine related job and skills shortages among businesses in Maryland, a survey was designed and circulated by the Maryland Marine Trades Association. The survey was made available to over 300 marine industry businesses throughout the Chesapeake Bay region. Approximately 51 marine industry businesses of the 300 surveyed responded to the questionnaire. Here is a summary of some of the findings:

Estimated Future Employment Openings

- 1) 5-20 employees (90%)
- 2) 1-4 employees (45%)

Unfilled Qualified Positions – This question addresses the projected need for skilled employees for the new season.

- 1) 1-5 employees (100%)

Workforce Age – This question identifies the average age of current employees at marine businesses.

- 1) Age 41-60 (78%)
- 2) Age 26- 40 (51%)
- 3) 18-25 (38%)

This data indicates that the current workforce of Maryland marine companies, including skilled workers, is an aging workforce. It is evident that these positions, through attrition, will eventually need to be filled with new employees. These statistics also support two sustainable branches for growth in the industry, one for the person setting off on a new career in the marine industry and the other for developing and sustaining a technically skilled workforce. A marine trade school in centrally located Talbot County will raise the bar on standards based work and will keep the trades professionals in steady demand.

Due to the small sample size of the Maryland Marine Trades Association Survey, the Chesapeake Marine Maritime Academy is conducting its own survey of marine business on the Eastern shore. This survey will be distributed to the marine industries on the Eastern shore with the goal of developing marine business relationships. The survey will give business names, contact information, number and age of employees as well as a detailed picture of 3 and 5-year expected job growth, skill demand and number of retirees. This detailed survey of Eastern Shore Marine businesses will be the basis of a database from which future strategies for engagement with marine business training needs will be made.

As for current relationships with marine businesses in Maryland, Chesapeake Marine Trades Academy (CMTA) currently has on its board Elliot Anderson, General Manager, of Hinckley Yacht Service – Chesapeake. The CMTA has also had discussions with Original Equipment Manufacturers and the Maryland Marine Trades Association at this point.

While The Eastern Shore currently suffers from a lack of skilled marine tradesmen, it also contains a large pool of young adults who grew up in the labor-intensive culture of farming and seafood harvesting but are leaving the Shore to find work. Developing and sustaining a technically skilled work force would allow these youth to remain, open new businesses, pay taxes, and raise their families here.

Many youth assume the best path to jobs is a four-year university education, yet many jobs require different form of post-secondary education. Approximately one third of jobs require postsecondary education or training, such as an associate's degree, technical certificate or an industry credential (Bureau of Labor Statistics) - exactly what can be offered through a trade school.

In addition, the Marine Trades Academy would also be an affordable option leading to well-paying jobs for many students who do not complete the graduation requirements of Chesapeake College, as well as, students currently graduating from high school within the catchment area of the College.

The Chesapeake Marine Trade Academy (CMTA) will create access to the highly effective trades training model and address many of the challenges facing young people in today's unfriendly labor market. It is also the intention of the CMTA to collaborate with the Department of Labor and local educational institutions to help identify students who may be interested in pursuing a career in the marine trades. Once trained and employed, these young students will replace the current experienced older retiring workforce, and because of their skill level, will help growing businesses in the region become productive and grow.

Purpose

The vision for the Chesapeake Marine Trades Academy (CMTA) is to offer skills training to students seeking employment in the maritime trades, as well as offer classes for those individuals interested in obtaining professional certifications for recreational boating or the commercial marine industry.

The CMTA will:

- Provide vocational training to individuals seeking a career in the maritime industry,
- Link graduates to high wage job opportunities,
- Offer an option to advanced level training or professional mariner careers, and,
- Develop a highly skilled labor force to sustain local and regional marine-related businesses.

The Chesapeake Marine Trades Academy will be a private non-profit organization and will seek 501c3 status through the IRS. A board of directors has been formed. Members include: John Schroeder, Guy Beckley, Douglas Blackmore, Elliot Anderson, and William Brashares. The CMTA has also formed an Advisory Board.

The Easton Economic Development Corporation (EEDC) will support the CMTA project with technical assistance and may pursue funding to support its initial efforts.

Project Description

Located on the North Fork of the Tred Avon River at Easton Point, the Chesapeake Marine Trades Academy will be based at 911 Port Street, Easton, MD. This commercial waterfront property is one mile from downtown Easton, has ~250 ft of bulkhead with ~15 ft of water depth. On site is a large brick building of ~4,000 sq ft with several office spaces, 2 baths, 2 workshop areas, plenty of off-street parking, and room for expansion.

Classes offered will be:

- Marine trades
 - Small engine and marine diesel engine repair and service
 - Yacht maintenance and repair
 - Marine electronics installation and repair
 - Fiberglass maintenance and repair
 - Marine air conditioning and refrigeration
 - Marine welding
- Professional certifications
 - USCG Captain's License certification
 - STCW safety certification
 - US Power Squadron boater safety

CMTA has approached Chesapeake College and they have expressed strong interest in supporting this program as a "continuing education" program. In addition, CMTA has been approached by Baltimore City Community College who has expressed interest in establishing this program as an "accredited" program in the State of Maryland. Their jurisdiction is for the entire State of Maryland.

It is also anticipated that Chesapeake College will partner in providing necessary remedial courses in the areas of mathematics, science and English, where necessary.

Supervised hands-on training for enrolled students will be available on private boats brought to the dock in need of maintenance or repairs. This combination of classroom work with real world experience and hands-on training will prepare students for a career in the maritime trades upon their graduation.

While a marketing plan has not been developed, it is anticipated that marketing efforts will include direct marketing through the public school systems of the Mid-Shore counties, direct advertising, a public relations campaign, the establishment of a tuition grant fund, and social media. Based on preliminary research, the market for programs developed by the CMTA is for the mid-Atlantic region; however, initial

marketing efforts will be focused on recruiting students in the Mid-Shore region and expand as necessary.

It is standard practice for trade academies to establish tuition and have students pay such tuition. However, recognizing that in the immediate target market area some students will not be able to afford to pay tuition, a partnership is being developed with the Mid-Shore Community Foundation to establish a scholarship program.

The final pro forma for the operation of the school has not been completed. It is estimated that the Academy will need 15 students to be viable.

Job placement for graduates will be a high priority for CMTA and will be a programmatic function offered to students. Based on our preliminary research, there is a high demand for trained workers in the marine trades that will likely continue to be as the current workforce ages. Post-apprenticeship, these workers can be expected to make \$60-70,000 annually.

There is a significant supplemental benefit to the investment of the Chesapeake Marine Trades Academy. This project will serve as an economic engine as well as a keystone property towards the Town of Easton's revitalization plan for the Easton Point waterfront.

The Town has indicated on its comprehensive plan that this area has Priority 1 status for annexation. Once this happens, property values will increase and a surge in various types of development is both planned and expected. This will greatly improve the prospect of expansion of the Chesapeake Marine Trades Academy.

Project Partners

Industry engagement has begun and is being led by Elliot Anderson, General Manager of Hinkley Yachts. Mr. Anderson has conducted a series of interviews with marina managers, suppliers, and industry leaders. He is joining the Board of Directors of the Marine Trades Association in order to solidify that connection. During the winter of 2015, a survey of industry leaders will be conducted in partnership with the Marine Trades Association and other organizations. The results of that survey will inform CMTA on the needs of the industry, the scope and type of jobs anticipated, the training required, salary ranges, and available resources to support the initiative. While some of that data has been previously collected through industry surveys, the proposed survey will expand and update the information.

Regional buy-in will be obtained through industry support and commitments, commitments and support from local leaders, including the Mid-Shore Regional Council, and elected officials.

The Chesapeake Marine Trades Academy is partnering with various marine industry companies, trade groups, and government agencies. In addition, it is endorsed by the following.

List of Supporters for the Chesapeake Marine Trades Academy

- Scott Jensen, Asst Secty, MD Dept of Labor, Licensing and Regs
- Amy Fusting, MD DLLR EARN program
- Tracy Ward, Exec Dir, Easton Econ Develop Commission
- Herb Miller, EEDC Board Chair/CEO of Western Development
- Lehr Jackson, EEDC Board Member/Developer
- Paige Bethke, Director, Talbot County Econ Develop
- Buck Duncan, Midshore Community Foundation
- Mike Thielke, Exec Dir, Eastern Shore Entrepreneurship Center
- Barbara Viniar, President, Chesapeake Community College
- Jean Henry, Baltimore City Community College
- Susan Zellers, Exec Dir, Marine Trades Assn of MD
- Jay Dayton, MTAM Board Member/Avon Dixon Insurance
- Ronda Bollinger, Board President, Upper Bay Marine Trades Assn
- John Adey, President, American Boat & Yacht Council
- Cris Gardner, Manager of Education Services, American Boat & Yacht Council
- William Akridge, Founder, MESCSA and educator
- Elliot L. Anderson, Gen Mgr, Hinckley Yacht Service-Chesapeake
- Guy Beckley, US Navy Landing Craft Program/Marine Trades Educator
- Douglas Blackmore, Retired Director of High School Learning Support/Business Entrepreneur
- Mark Yehle, Steinberg Partnerships

Project Cost

\$100,000 planning and permits

\$400,000 build-out of the building and shop into classrooms and labs

\$250,000 school equipment and tools

\$50,000 parking lot and landscape improvements

CHAPTER 4 – EVALUATION

How are we doing?

Evaluation

The CEDS Committee will meet twice a year to evaluate the planning process, review the status of implementation activities, and submit new projects. The CEDS document will be updated once a year as required by the Economic Development Administration. The following outline reflects the committee's evaluation procedure:

1. Evaluate Current Economic Condition

The Mid-Shore Regional Council will oversee the evaluation process with the CEDS Committee. The evaluation process will begin with a discussion of the economic situation in the region and how it has changed within the past year. Presentations on the status of the economic conditions of each county will be made by their Economic Development Directors. State information will be presented by an official of the Maryland Department of Business and Economic Development. Other statistical information will be obtained from various federal, state and local agencies.

2. Review goals and objectives

Based on changes in the local economy, the committee reviews the existing goals to insure that they reflect the region's economic needs and conditions. Any modification of the goals requires a majority vote from the CEDS Committee.

Each goal will be evaluated separately by the CEDS Committee using the worksheet in **Appendix D**. These worksheets will be completed by the Steering Committee and presented to the CEDS committee for review and potential modifications.

3. Review current/ongoing and new projects for consistency with revised goals.

All of the current projects are discussed in regard to meeting identified goals and objectives.

4. Determine the success of each completed project in terms of meeting the identified goals.
5. Review the progress of current projects, and add new projects to the document after reviewing them for consistency with the goals.
6. Apply the approved prioritization criteria to adjust the rating for the projects and programs
7. Review the level of public involvement and education

APPENDICES

APPENDIX A – CEDS Committee

Name	Race	Gender	Affiliation
Adelaide Eckardt	Caucasian	Female	Maryland District 37 Senator
Alan Silverstein	Caucasian	Male	Talbot County Chamber of Commerce
Allen Nelson	Caucasian	Male	Dorchester County resident
Amanda Fenstermaker	Caucasian	Female	Dorchester County Office of Tourism
Andy Hollis	Caucasian	Male	Talbot County Manager
Angela Visintainer	Caucasian	Female	Caroline Economic Development Corporation
Ann Jacobs	Caucasian	Female	Caroline County Chamber of Commerce
Anne Fleming	Caucasian	Female	Dorchester County business representative
Barbara Viniar	Caucasian	Female	Chesapeake College President
Brad Powers	Caucasian	Male	Agribusiness Services
Bruce Weaver	Caucasian	Male	USDA Rural Development
Buddy Harrison	Caucasian	Male	Maryland Seafood Industries
Burton Wilson	African American	Male	Talbot County minority representative
Carolyn Spicher	Caucasian	Female	Caroline County business representative
Cassandra Vanhooser	Caucasian	Female	Talbot County Office of Tourism
Christopher Adams	Caucasian	Male	Maryland District 37 B Delegate
Chuck Callahan	Caucasian	Male	Talbot County Council
Dan Franklin	Caucasian	Male	Caroline County Commissioner
Dan McDermott	Caucasian	Male	Upper Shore Workforce Investment Board
Dan Rider	Caucasian	Male	Association of Forestry Industries, Inc.
Debra Divins Davis	Caucasian	Female	Dorchester County Chamber of Commerce
Debra Rowe	Caucasian	Female	Mayor of Maryland
Dirck Bartlett	Caucasian	Male	Talbot County Council
Don Satterfield	Caucasian	Male	Dorchester County Council
Gale Nashold	Caucasian	Male	Greensboro resident
James Redman	African American	Male	Easton Elementary School Principal
Jeannie Haddaway-Riccio	Caucasian	Female	Talbot County business representative
Jeremy Goldman	Caucasian	Male	Interim Dorchester County Manager
Jerome Stanley	African American	Male	Dorchester County minority representative
John General	Caucasian	Male	Chesapeake Bay Region T.C.E.
Johnny Mautz	Caucasian	Male	Maryland District 37 B Delegate
Karen Olmstead	Caucasian	Female	Salisbury University, Dean Science & Technology
Kathleen Mackel	Caucasian	Female	Caroline County Office of Tourism
Keasha Haythe	African American	Female	Dorchester County Economic Development Office
Ken Decker	Caucasian	Male	Caroline County Administrator
Kurt Fuchs	Caucasian	Male	Maryland Farm Bureau

APPENDIX B – Tax Credits

Program	Administering Agency	Qualifications	Benefits
Enterprise Zone Tax Credit	DBED	Location in an approved Enterprise Zone; new employment or new investment	10-year credit against local property taxes on a portion of real property improvements; one-to-three year tax credits for wages paid to new employees
Work Opportunity Tax Credit	DBED	One-time credit to employers who hire new employees from a qualified population of low-income groups, including workers with disabilities	Credit is 40% of the first \$6,000 in wages if the individual works a minimum of 180 days or 400 hours; or up to 25% of the first \$6,000 in wages if the individual works at least 120 hours but less than 400 hours; summer youth credit of 25% on first \$3,000 paid during first-year of 90-day summer period
MD Disability Employment Tax Credit	Dept. of Education and MD Dept. of Labor, Licensing and Regulation	Business must hire people with disabilities including veterans with a service-related disability.	Credit is 30% of the first \$6,000 in wages, plus up to \$600 for child care or transportation in first year; and 20% of the first \$6,000 in wages, plus up to \$500 for childcare in second year
Employment Opportunity Tax Credit	DBED	Business must hire at least one employee who received either Aid to Families with Dependent Children (AFDC) or Family Investment Program (FIP) payments for any three months in 18-month period prior to employment	Credit is 30% of the first \$6,000 in wages, plus up to \$600 for child care or transportation in first year; 20% of the first \$6,000 in wages, plus up to \$500 for childcare in second year
One Maryland Tax Credit	DBED	Location in a qual. county(Worcester, Dorchester, Caroline, Somerset, Baltimore City, Garrett, or Allegheny); notification to DBED prior to hiring; location in a qualifying Priority Funding Area hiring of at least 25 new positions; and the investment of at least \$500,000	Qualify for project tax credits of up to \$5,000,000 and start-up tax credits of up to \$500,000; company has 15 years to use the credit
Job Creation Tax Credit	DBED	Cannot be used in conjunction with One Maryland; notification of DBED prior to hire; must operate a business in an eligible industry; must create 60 new jobs in a 24-month period, or 25 if in a Priority Funding Area	Credit is the lesser of \$1,000 times the number of new fulltime jobs or 21/2% of total annual wages for new fulltime jobs. If the business is located in an enterprise zone, Designated Neighborhood, the credit is \$1,500 times the number of new full-time jobs or 5% of the total annual wages of new full time jobs
Work-Based Learning Program Credit	Dept. of Education	Must hire students as part of an approved work-based learning program	15% of the wages paid to each student, up to a maximum of \$1,500 for all years for each student

Program	Administering Agency	Qualifications	Benefits
Water Quality Improvement Credit	Dept. of Agriculture	Credits can be claimed for the additional commercial fertilizer costs necessary to convert agricultural production to a certified nutrient management plan	50% of the cost for three consecutive years, not to exceed \$4,500 per year
Research and Development Credit	DBED	Businesses must incur qualified research and development expenses in Maryland	3% of expenses up to the base amount over last four years, and 10% of expenses exceeding the base amount over last four years
Neighborhood Partnership Program Tax Credit	DBED	Businesses must contribute cash or goods to approved projects of non-profits funded under the Neighborhood Partnership Program	Maximum of \$250,000 credit per year, over and above charitable contribution deductions already allowed on Federal and State returns, credit is given for 50% of the value of the donation
Heritage Preservation Tax Credit	Maryland Historical Trust	Substantial expenditures must be incurred in a 24-month period to rehabilitate a certified heritage structure	25% of expenditure
Green Building Tax Credit	MD Energy Administration	Businesses must construct or rehabilitate a building that conforms to specific standards intended to save energy and mitigate environmental impact	8% of overall costs, 30% of costs to purchase a fuel cell, 25% of the cost of wind turbines, and 25% of the cost of photovoltaic modules
Employer-Provided Long-Term Care Insurance Credit	Comptroller	Businesses must provide long-term care insurance as part of an employee's benefit package	5% of the costs up to a total of \$5,000 per year or \$100/employee, whichever is less
Commuter Tax Credit	MD Transportation Authority	Businesses must provide commuter benefits for workers including workers' travel to and from home and the workplace	50% of costs up to a maximum of \$50 per month per employee
Clean Energy Incentive Tax Credit	Comptroller	Businesses must purchase and install solar water heating property and photovoltaic property or use waste materials to produce electricity that is sold to an unrelated person	.85 cents credit for each kilowatt hour of electricity produced; .5 cents credit per kilowatt hour if co-produced with coal
Cellulosic Ethanol Technology Research and Development Tax Credit	DBED	Businesses must invest in Cellulosic Ethanol Technology research	10% of qualified research paid in tax year, not exceeding \$250,000

Program	Administering Agency	Qualifications	Benefits
Biotechnology Investment Incentive Tax Credit	DBED	Businesses must contribute at least \$25,000 to a qualified biotechnology company but no more than \$250,000 in a single company	Up to 50% of amount contributed in tax year
Bio-Heating Oil Tax Credit	MD Energy Administration	Businesses must purchase "Bio-heating oil" with a blend of at least 5 percent biodiesel with documentation	Credit 3 cents per gallon of bio-heating oil
Long-Term Employment of Ex-Felons Tax Credit	MD Dept. of Labor, Licensing and Regulation	Businesses must hire at least 1 ex-felon and employ that person for a minimum of one year.	Credit for 1 st year, 30% of first \$6,000 paid to qualified individual with a max of \$1,800, 20% of the 2 nd year first \$6,000 paid with a max of \$1,200
MD-Mined Coal Tax Credit	MD Dept. of Assessments and Taxation	Business must purchase MD-mined coal during tax year.	Credit \$3 per ton of MD-mined coal
Telecommunications Property Tax Credit	MD Dept. of Assessments and Taxation	Businesses must be a public utility that is a telecommunications company and paid property taxes in MD	Credit 60% of total property taxes paid by the public utility and cannot exceed state income tax liability after deducting allowable income credits
Businesses that Create New Jobs Credit	Assessments and Taxation	Businesses must create at least 25 new positions and establish or expand business facilities. Such businesses must first have been granted a property tax credit by a local government	Property tax credit in the 1 st & 2 nd years of 52%, 39% in the 3 rd & 4 th , 26% in the 5 th & 6 th and 0% for remaining taxable years; personal or corporate income tax, or insurance premiums tax credit of 28% in 1 st & 2 nd years, 21% in 3 rd & 4 th , 14% in 5 th & 6 th and 0% in remaining taxable years

APPENDIX C – CEDS Project Evaluation Guidelines (PEG)

Background

CEDS PEG is designed to assist evaluators in assessing the viability and likely funding success of proposed CEDS projects. It is a multi-tiered process which takes into account:

- MSRC CEDS goals
- Code of Federal Regulations (CFRs)
- EDA Evaluation Criteria
- EDA Investment Priorities
- EDA and MSRC Funding Priorities

The applicable CFR's, Supplemental EDA Evaluation Criteria, and EDA Investment Priorities are available on the U.S. Economic Development Administration website, www.eda.gov.

Note: Even though projects may not qualify for EDA funding, they are welcome for submittal and evaluation for inclusion in the CEDS based on their benefit as a regional project.

Implementation

CEDS PEG fits within the overall CEDS project flow as depicted in Figure 1. Figure 2 is the CEDS PEG flow. The following discusses the specific steps in the CEDS PEG process.

STEP 1 - Meets CEDS Goals

The project must address one or more of the following CEDS goals:

1. Ensure that there is sufficient public infrastructure (e.g. telecommunications, IT, incubators, waste water treatment capability, roads, transportation, education facilities, technology training centers, and public parks) and investment capital to foster the development and prosperity of our existing and new industry clusters.
2. Establish a regional identity and marketing plan that leverages our competitive advantages, protects our natural resources, honors our rural heritage and takes proactive measures to diversify the economy.
3. Encourage programs that accelerate the development of companies that apply new concepts and technologies in innovative ways.
4. Strengthen and diversify agriculture, fisheries and support newest techniques in aquaculture and agriculture.
5. Support opportunities for continuous learning and workforce development.
6. Provide regional data and technology services needed for present and future infrastructure planning and construction (e.g. regional GIS mapping system).

If the project does not address one or more of the CEDS goals it must be rewritten to address the goals, referred to one of the counties for submission, or discarded.

CEDS PROJECT FLOW

PROJECT DRAFT

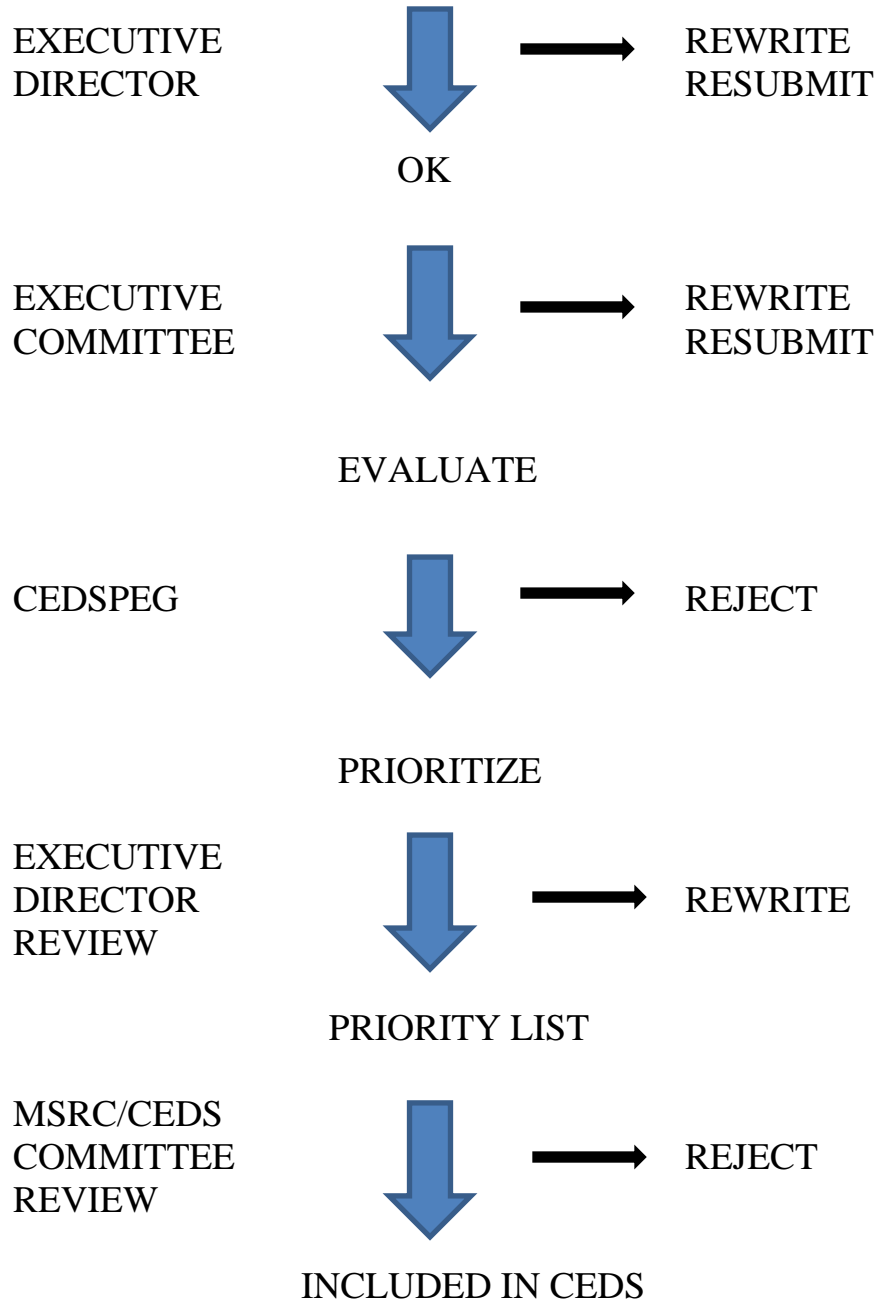


FIGURE 1

CEDSPEG **FLOW**

PROJECT

STEP 1

**MEET CEDS
GOALS**



NO



**REWRITE/
COUNTY
SUBMISSION**

YES

STEP 2

**MEETS
CFR 301.8
CRITERIA**



NO



**REWRITE/
DISCARD**

YES

STEP 3

**MEETS EDA
INVESTMENT
PRIORITIES**



NO



**REWRITE/
DISCARD**

YES

STEP 4

**EVALUATE
PRIORITY**



**ASSIGN
PRIORITY**

FIGURE 2

STEP 2 - Meets CFR 301.8 Application Evaluation Criteria (from 13 CFR Ch. III (1-1-11 Edition))

The following is excerpted from CFR section 301.8:

EDA will screen all applications for the feasibility of the budget presented and conformance with EDA statutory and regulatory requirements. EDA will assess the economic development needs of the affected Region in which the proposed Project will be located (or will service), as well as the capability of the applicant to implement the proposed Project. EDA also will consider the degree to which an Investment in the proposed Project will satisfy one (1) or more of the following criteria:

- (a) Is market-based and results driven.
- (b) Has strong organizational leadership.
- (c) Advances productivity, innovation and entrepreneurship.
- (d) Looks beyond the immediate economic horizon, anticipates economic changes and diversifies the local and Regional economy.
- (e) Demonstrates a high degree of local commitment.

Projects that do not meet the above criteria should be rewritten or discarded.

STEP 3 - Meets EDA Investment Priorities

The following is excerpted from the EDA website www.eda.gov:

Within the parameters of a competitive grant process, all projects are evaluated to determine if they advance global competitiveness, create jobs, leverage public and private resources, can demonstrate readiness and ability to use funds quickly and effectively, and link to specific and measurable outcomes.

To facilitate evaluation, EDA has established the following investment priorities:

- 1) Collaborative Regional Innovation
- 2) Public/Private Partnerships
- 3) National Strategic Priorities
- 4) Global Competitiveness
- 5) Environmentally -Sustainable Development
- 6) Economically Distressed and Underserved Communities

Projects that do not meet one (1) or more of the above criteria should be rewritten or discarded.

STEP 4 - Evaluate Priority

This step involves the prioritizing of the projects that have reached this final step. There are two levels of funding priorities—those established by EDA and those established by the MSRC. The following list the funding priorities:

EDA (A-D) MSRC (D-I)

- A. Proposals that enhance regional competitiveness and support long-term development of the regional economy; for example:
 - 1. Upgrade core business infrastructure
 - a. Transportation infrastructure
 - b. Communications infrastructure
 - c. Specialized training program infrastructure
 - 2. Reflect and implement a regional strategy that involves all stakeholders
 - a. Support regional benchmarking initiatives;
 - b. Encourage a common vision and collaboration among firms, universities, and training centers to implement a regional strategy;
 - c. Reflect strong leadership committed to regional economic development; and
 - d. Encourage a formal organization structure and process for working on economic issues and maintaining consensus.
 - 3. Encourage cluster development
 - a. Establish research and industrial parks that encourage innovation-based competition; and
 - b. Implement cluster-focused and innovation-focused business development efforts
- B. Proposals to help communities plan and implement economic adjustment strategies in response to sudden and severe economic dislocations (e.g. major lay-offs and/or plant closures, trade impacts, defense restructuring, or disasters).
- C. Proposals that support technology-led economic development; for example, proposals that:
 - 1. Reflect the important role of research and development capacity of universities in regional economic development; and
 - 2. Create and support technology transfers.
- D. Proposals that advance community and faith-based social entrepreneurship in redevelopment strategies for areas of chronic economic distress.
- E. Obvious regional benefits
- F. Addresses barriers to economic development as identified by the CEDS

- G. Creates and/or retains jobs
- H. Solves a pressing infrastructure or economic development need
- I. Potential for broad based community and political support.

STEP 6 - Assigning Priorities

Each project will be assigned a 1 or 0 for each of the following listed above:

A 1

A 2

A 3

B

C 1

C 2

D

E

F

G

H

I

The maximum possible score is 12 and projects shall be prioritized on the bases of their score:

High Priority 8-12 points

Medium Priority 4-7 points

Low Priority 1-3 points

APPENDIX D – CEDS Evaluation Worksheet

GOAL I

Ensure that there is sufficient public infrastructure (e.g., telecommunications, IT, incubators, wastewater treatment capability, roads, transportation, educational facilities, technology training centers, and public parks) and investment capital to foster the development and prosperity of our existing and new industry clusters.

Performance Measures

- Infrastructure projects underway and/or ready to proceed
- Regional Telecom plan has been developed
- Technology parks underway
- Retention of existing industry clusters
- New industry clusters being established

Source of Data

- Mid-Shore Regional Council; Dorchester, Caroline, and Talbot County Economic Development Departments
- Activities Undertaken to Achieve this Goal
- Status
- Evaluation and Recommendations

GOAL II

Establish a regional identity and marketing plan that leverages our competitive advantages, protects our natural resources, honors our rural heritage and takes proactive measures to diversify the economy.

Performance Measures

- Completion of a marketing plan
- Funding obtained from local, federal and/or state
- Marketing activities underway
- Number of expanding and new businesses associated with regional identity

Source of Data

- Mid-Shore Regional Council, state and counties

Activities underway or completed to achieve this goal

Status

Evaluation and Recommendations

GOAL III

Encourage programs that accelerate the development of companies that apply new concepts and technologies in innovative ways.

Performance Measures

- Increase in Median Household Income
- Increase in average wage rate
- Incidents of conflicts between business and environmental interests have been solved and frequency is decreasing

Source of Data

Mid-Shore Regional Council; Dorchester, Caroline, and Talbot County Economic Development and Planning Departments

Activities Undertaken to Achieve this Goal

Status

Evaluation and Recommendations

GOAL IV

Strengthen and diversify agriculture, fisheries and support newest techniques in aquaculture and agriculture.

Performance Measures

- Percentage increase in economic contribution from agriculture and fisheries businesses
- New value added agriculture and fisheries businesses
- Increase in number of companies deploying new aquaculture techniques in area

Source of Data

Mid-Shore Regional Council; Dorchester, Caroline, and Talbot County Economic Development Departments, American Farmland Trust, Farm Bureau, DBED

Activities Undertaken to Achieve this Goal**Status****Evaluation and Recommendations****GOAL V**

Support opportunities for continuous learning and workforce development.

Performance Measures

- Number of continuing education programs
- Local businesses are able to hire qualified employees
- Increased activity with workforce development. Development of new technology training centers

Source of Data

Mid-Shore Regional Council; Upper Shore Workforce Investment Board, Dorchester, Caroline, and Talbot County Economic Development Departments; Department of Labor, Licensing, and Regulation; business associations; individual businesses. Activities Proposed to Achieve this Goal

Status**Evaluation and Recommendations****GOAL VI**

Provide regional data and technology services needed for present and future infrastructure planning and construction (e.g., regional GIS mapping system).

Performance Measures

- Establishment of a regional GIS provider
- Technical needs for infrastructure planning and construction are being met.

- Extent to which data and technology services meet need for infrastructure planning and construction

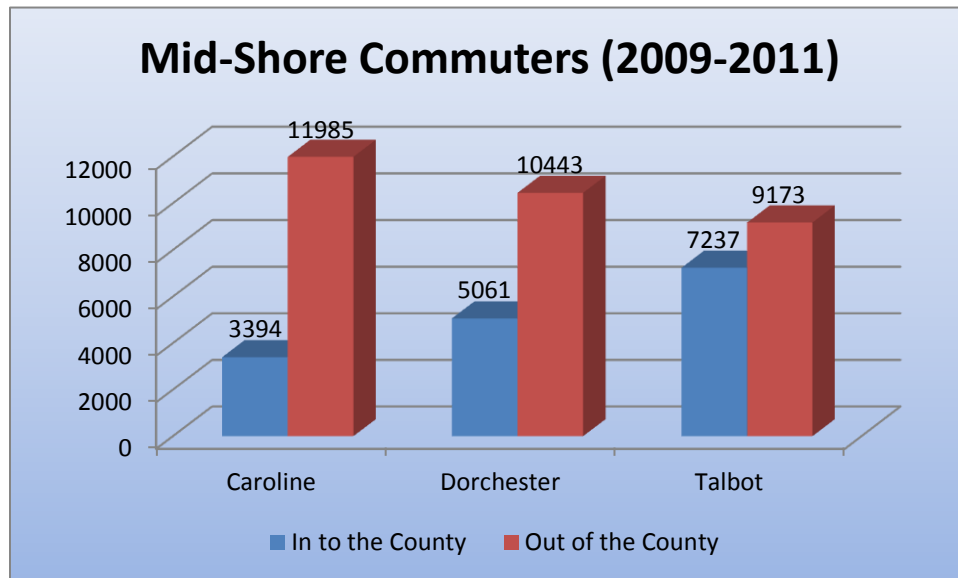
Source of Data

Mid-Shore Regional Council; municipal governments; Dorchester, Caroline, and Talbot County Departments of Economic Development and Public Works

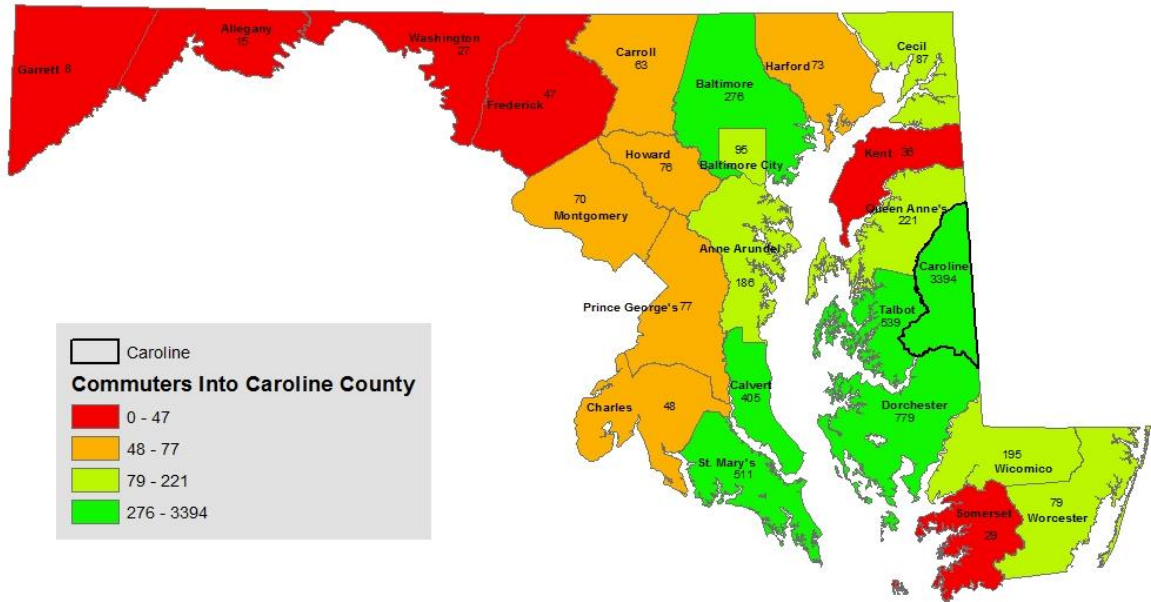
Activities Proposed to Achieve this Goal**Status****Evaluation and Recommendations**

Appendix E

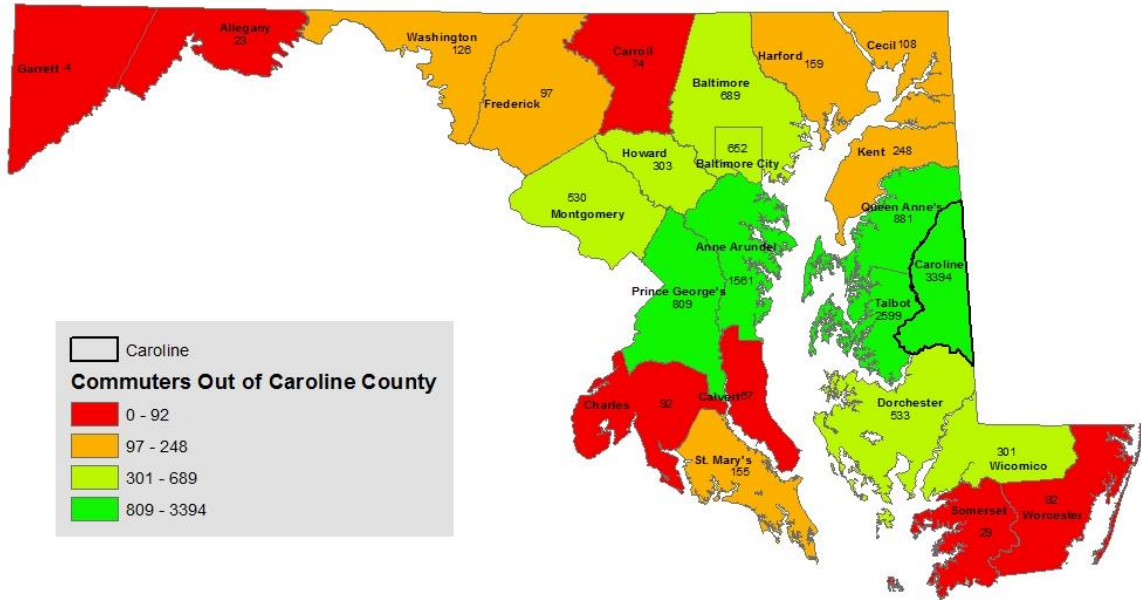
Commuter Stats



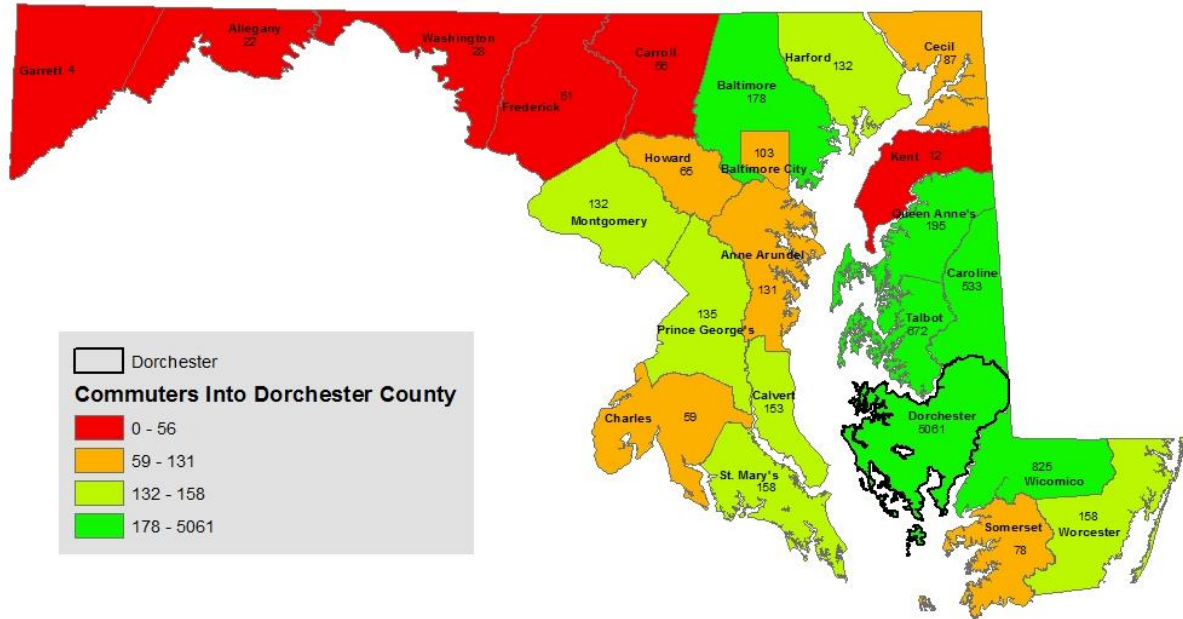
Commuting Patterns of Workers Coming into Caroline County, (2010)



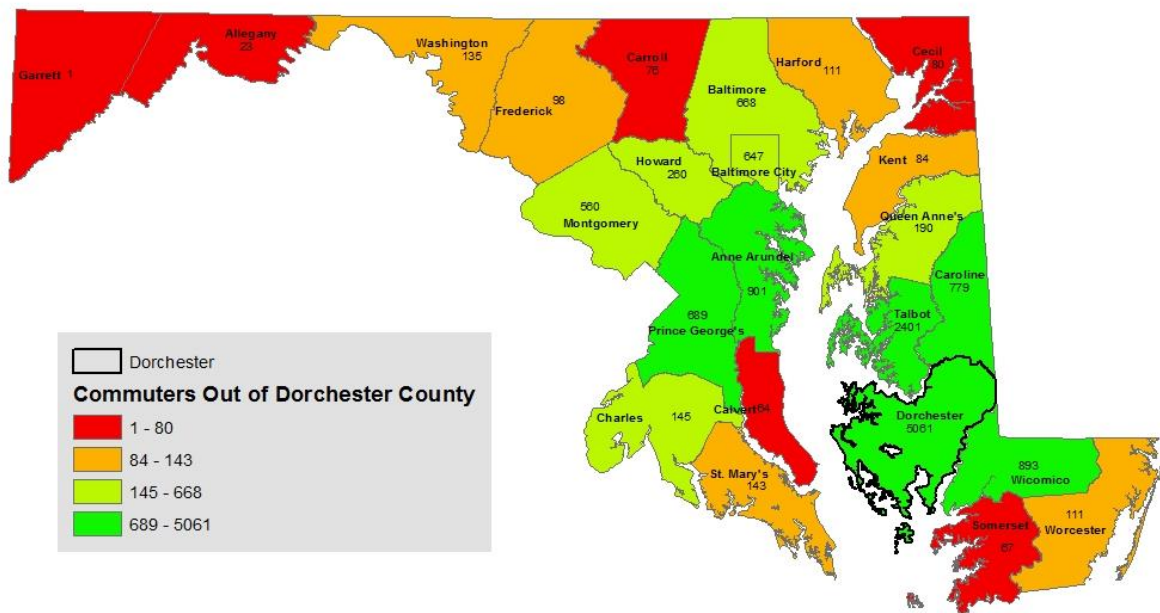
Commuting Patterns of Workers Living in Caroline County, (2010)



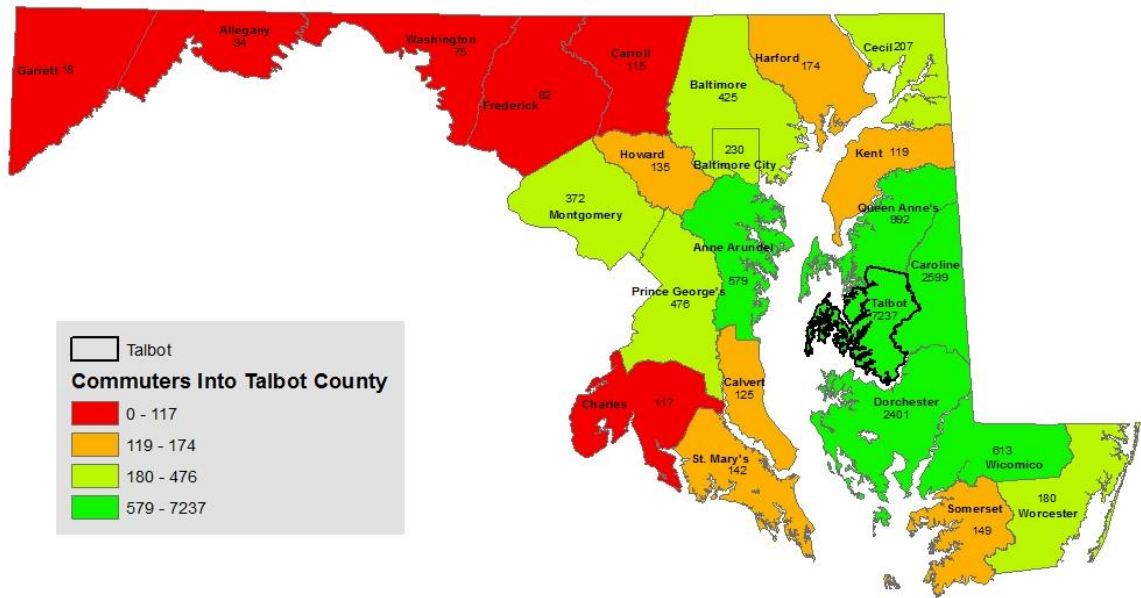
Commuting Patterns of Workers Coming into Dorchester County, (2010)



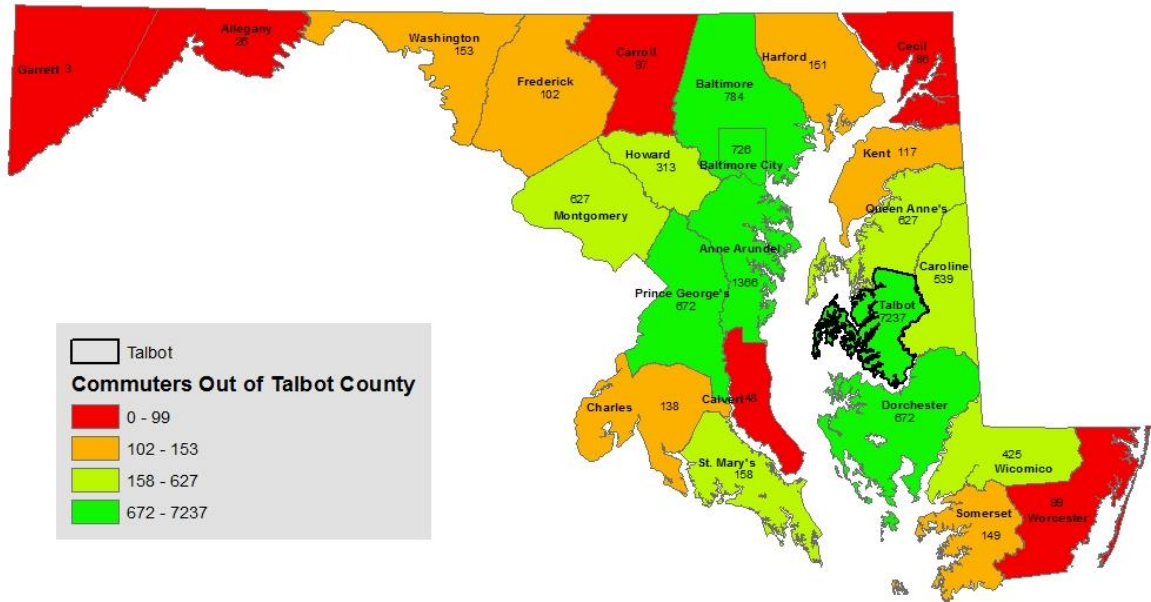
Commuting Patterns of Workers Living in Dorchester County, (2010)



Commuting Patterns of Workers Coming Into Talbot County, (2010)



Commuting Patterns of Workers Living in Talbot County, (2010)



Source: Maryland Department of Planning

(http://planning.maryland.gov/MSDC/Commutation/LEHD_2010/LEHD2010_idx.shtml)

APPENDIX F – Completed and Removed Projects

City of Cambridge Sewer and Storm Water Infrastructure Improvements

Priority Rating - High

Background

The City of Cambridge recently completed a \$16M BNR (Biological Nutrient Removal) project to comply with Maryland State discharge regulations. The City financed \$10.5M of the total project costs. To service the costs of the upgrade the 11,000 residents and local businesses will have to pay significantly higher sewer rates. The City has also been notified that the tiered rating system they offer large industrial users violates the Clean Water Act and they have to charge them the same rate as residential users. The combination of increased rates and the transition to flat rate fees threatens the viability of several large businesses in Cambridge.

Icelandic Seafood's sewer fees will increase by 85% and will cost them an additional \$246,000 per year. At this rate they can not sustain a profitable operation and have notified the City and County that they will relocate their operation and eliminate 450 jobs in the region. Even before the rate increase the City's sewer rates were some of the highest on the eastern shore and almost as high as some metropolitan areas. The rate increase also creates a barrier to expanding existing businesses or recruiting new environmental science and tech based companies to the region.

In addition to the BNR upgrade, the City has been mandated by the Maryland State Department of the Environment to separate their storm water and sewer infrastructure by 2006. They have completed phases I and II at a cost of \$3.2M. The engineering plan for Phase III is complete. To avoid having to take on more debt and implementing another rate increase that would put more local businesses at risk, the City of Cambridge is seeking financial assistance to pay for Phases III and IV of the storm water upgrades.

Project Description/Strategy

Complete Phases III and IV of the storm water and sewer separation project mandated by the Maryland State Department of the Environment.

Cost

Phase III – Oak Street and Willis Street	\$1,075,000
Phase IV- West End Ave and Choptank Ave	\$1,075,000
Total	\$2,150,000

Project Partners

- City of Cambridge
- EDA
- USDA

PROJECT CATEGORY: PUBLIC WORKS PROJECT - ALL FOUR PHASES COMPLETED BY 2006

Wastewater Treatment Systems – Improvement and Development

Priority Rating - High

Background

Wastewater treatment is an essential infrastructure requirement for businesses. Many of the Mid Shore business districts and communities are served by systems that are at capacity or require upgrades to meet State and Federal requirements for biological nutrient removal. Some of the businesses in smaller towns are still using septic systems that are cumbersome and cannot accommodate growth. Improved wastewater treatment infrastructure has been identified as a priority by the CEDS committee and in the Governor's Task Force Report for Economic Development on the Eastern Shore.

Project Description/Strategy

To ensure the region has the capacity to handle future growth, the Mid Shore Council has commissioned an engineering firm to conduct an assessment of the priority wastewater treatment needs in the region and develop regional solutions. Many of the counties and municipalities are in the process of updating their comprehensive water and sewer plans.

Cost

The regional wastewater assessment is financed by the Mid Shore Regional Council. Future expansion or development of systems will require a collaborative funding effort.

Project Partners

- Caroline County
- Dorchester County
- Talbot County
- Mid Shore Municipalities
- Mid Shore Regional Council
- Maryland State Department of the Environment

PROJECT CATEGORY: PUBLIC WORKS PROJECT

COMPLETED: NOVEMBER 2003

Priority Rating - High

Background

In November of 2002 Black and Decker, the largest employer in the Mid Shore Region, announced that it will close its plant in Easton in December 2003 and subsequently lay off more than 1,300 people. Seventy five percent of the employees at Black and Decker reside in Caroline, Dorchester and Talbot counties. In a region already under significant economic distress this closure is creating severe hardships for the local citizens and private industries that cater to Black and Decker and their employees.

The CEDS committee and local elected officials are now facing the challenge of identifying the planning requirements, infrastructure, and training facilities that will be needed to grow emerging industry clusters, and attract new knowledge based and specialty manufacturing companies that will rebuild and diversify our economy.

Project Summary

Develop an economic adjustment strategy and implementation plan that will include the following:

- 1) A detailed needs assessment of training required to prepare our workforce for new higher wage jobs in industry clusters that have been identified in the CEDS as growth opportunities in the Region. These clusters include:
 - a) Medical technology
 - b) Aviation technology and service
 - c) Agriculture processing technologies
 - d) Marine/agriculture/bio science
 - e) Environmental science and testing labs
 - f) Homeland defense industries
 - g) Contract/prototype specialty manufacturing for biotech companies in DC and Baltimore area
- 2) Bring delegation of elected officials to a community that has successfully broadened their economy in response a large plant closure/dislocation to interview elected officials, companies and ED Directors.
- 3) Develop specific short-term and long-term strategies (marketing and recruitment) for building out the above industry clusters, where market demand can be justified, and define costs associated with each activity.
- 4) Identification of specific opportunities relative to viable clusters for incubation and development of other forms of entrepreneurial infrastructure

- 5) Identification of infrastructure and operating costs of recommendations that result from task 4.
- 6) Long term job creation and investment potential (private sector) related to recommended implementation activities.
- 7) Long term job creation and private investment potential associated with build out of industry clusters mentioned above.
- 8) Projected timeline for achieving goals and performance measurement criteria

Cost

The estimated cost of for the work plan above is \$100,000

Project Partners

- EDA
- DBED
- Mid Shore Regional Council
- Chesapeake Bay Region Technical Center for Excellence
- Talbot County Office of Economic Development
- Easton Town Council

Results

This project was completed in March 2004 and briefed in July 2004. There were two primary recommendations.

- Create a technology incubator in Dorchester County affiliated with Horn Point Laboratory.
- Create an access to capital program to support the financing of entrepreneurs.

PROJECT CATEGORY: STRATEGIC PLANNING, ANALYSIS AND ACCESS TO CAPITAL

COMPLETED: MARCH 2004

Barley Based Ethanol Plant

Priority Rating - High

Background

A priority CEDS goal for the Mid Shore Region is to strengthen and diversify the local farm economy. Mid-Atlantic BioFuels (MABF) working group has pursued the establishment of an ethanol industry in Maryland. It will help strengthen and diversify Maryland's agriculture sector by creating a demand for an underutilized crop that can be easily propagated in the area, barley. Developing a new industry and expanding the market for barley on the eastern shore will both improve the economy and create new opportunities for farmers in this rural area.

Project Description

Maryland Grain Producers Utilization Board, with financial input from the Maryland Center for Agro-Ecology, funded a feasibility study to see if high tech ethanol production using barley as a feedstock was profitable. Generally, the outcome was favorable, but marginal. This led to examination of building a much larger facility of approximately 50 million gallons per year. To attain this level of production it became necessary to plan for use of barley during three months after harvest, local corn for one month during harvest time and, finally, corn shipped via unit trains from the Midwest during the remaining 8 months. The long term goal is to increase use of barley in the plant to minimize the need for corn. With this new plan in mind, two major concerns had to be addressed – the added cost of rail transportation on the Shore and the impact on the poultry industry of using corn in an already deficit area. In November, 2005, as a result of recommendations by MABF, Chesapeake Ethanol LLC was formed, with 2 of the 5 board members from the Midshore, and a consultant on the project also from the Midshore. After thoroughly examining alternative sites for the ethanol plant, a decision was made to pursue a site in the Baltimore area. The site under consideration provides several advantages: proximity to ethanol/gasoline blenders, adequate rail for unit trains, marine industrial property to gain access to water transportation, ample supplies of process water and natural gas. Once the site is procured, it will take from 9 to 12 months to get the necessary permits followed by 14 to 18 months for construction.

Project Cost and Funding Strategy

Funding to support the project has come from:

Maryland Grain Producers Utilization Board	25,000
The Center for Agro-Ecology	25,000
Maryland Farm Bureau	25,000
Maryland Crop Investment Assoc.	5,000
Maryland Farm Credit	1,000
USDA Rural Development Grant	50,000
DBED	125,000
Total	\$ 256,000

The estimated cost of the plant is in excess of \$100 million. Farmers will be given a priority as investors in the project. The feasibility study has been completed, a design and engineering firm has been hired, and the business plan is nearly complete. In addition to the above sources of funds, \$100,000 has been raised from private sources to continue the business of the Chesapeake Ethanol LLC board.

Project Partners

- Maryland Grain Producers Utilization Board
- The Maryland Center for Agro Ecology
- Maryland Farm Bureau
- Maryland Crop Improvement Association
- Maryland Farm Credit
- USDA Rural Development
- Maryland Department of Business and Economic Development

PROJECT CATEGORY: AGRICULTURE, AQUACULTURE AND FORESTRY

ACTION: JANUARY 2012, THE CEDS COMMITTEE HAS FOUND THIS

PROJECT NOT TO BE ECONOMICALLY VIABLE AT THIS TIME.

Strategy for an Aquaculture Pilot Project

Priority Rating – Medium

Background

The seafood industry has been a mainstay of the Eastern Shore economy. Traditional methods of harvesting from the Bay are producing lower economic returns due to conservation regulation and the uncertainty of naturally occurring populations of crabs, oysters and fish. The Mid-Shore Regional Council CEDS has goals to strengthen and diversify the seafood industry through new technologies in aquaculture. This project addresses that goal.

Project Description/Strategy

This project will examine the feasibility, economic viability and environmental impact of various aquaculture technologies that might be employed in the tri-county region. The goal of the project is to identify an aquaculture pilot project which has the potential for significant economic impact, and the likelihood of early success. The particular seafood product would likely, but not necessarily, be a traditional Eastern Shore commodity. Projects not selected for the pilot would be considered for future implementation or incubation.

Cost

It is estimated that the analysis to determine a pilot project would cost \$100,000. Some pro-bono support would be anticipated from the USDA, Maryland Department of Agriculture, and various state and federal research activities.

Project Partners

- USDA
- DBED
- MD Dept. of Agriculture
- Wye Research and Education Center
- Horn Point Lab
- Oxford Cooperative Lab
- Chesapeake Bay Region Technical Center of Excellence
- Private investors

PROJECT CATEGORY: AGRICULTURE, AQUACULTURE AND FORESTRY

ACTION: JANUARY 2012, THE CEDS COMMITTEE REMOVED FROM THE ACTION PLAN
DUE TO LACK OF PERFORMANCE MEASURES AND OTHER DETAILS.

Calhoon MEBA Vessel Firefighting Program and Training Facility

Priority Rating – Medium

Background

The Calhoon MEBA Engineering School, located on a 625 acre waterfront campus in Talbot County, Maryland, is one of six Engineering Schools certified to train Merchant Marines. The Calhoon MEBA School is ISO 9000 certified, offering 28 programs in technical skills and seaworthy programs that are supported with state of the art labs and equipment. The school leads the industry in offering certified on line simulation training for the Merchant Marines and the Coast Guard and plays a large role in training the 80,000 registered and 30,000 active licensed Merchant Marines. Traditionally a school for the Unions, the Calhoon MEBA School has opened its doors to the area business community and would like to expand its offering in the skilled trades.

Purpose

This project has 2 components:

1. To expand the current Calhoon MEBA facility with a vessel firefighting simulation: Calhoon MEBA currently offers a Vessel Firefighting Program for Coast Guard and Merchant Marine certification. To ensure safety of maritime and cargo fleets and support homeland security initiatives through the training of local first responders, the school will donate land and is requesting funds to build a vessel simulation for the firefighting program. This is a national pilot project.
2. To support trade skill training requirements of regional businesses at the Calhoon MEBA Facility using their labs and instructors. Calhoon MEBA Engineering School will establish an area trade skill development program with local businesses.

Project Description

1. The Federal Government has determined that Coast Guard and Merchant Marines will be required to complete a Vessel Fire Safety Training Program, mandatory for all licenses every year beginning in 2010. The Calhoon MEBA facility is currently delivering a program to this audience, based on a five year requirement for recertification without a vessel simulation site. To train the volume of students expected after the 2010 start date, a dedicated site with vessel fire simulation infrastructure will have to be constructed. Calhoon would like to build a vessel fire fighting simulation site on their campus and make land available for the construction. The Vessel Firefighting Program would also be available to DNR and local fire houses in the region. The program would service the East Coast.
2. The Region would like to take advantage of the Calhoon MEBA Engineering School facilities to train area businesses in the trades. There are no technical skills training facility in the region. Monies for training at the state have diminished at a time when technical skill training

is drastically needed to provide future jobs. An investment of \$500,000 is required to develop customized training programs using the Calhoon MEBA facilities and to offset the cost to area businesses. A pilot program will be developed with the majority of the funds be used as a 50/50 match to area businesses for employee training. The monies would be administered by the MSRC and made available to the businesses through Economic Development Directors and the local Workforce Investment Board (WIB) who would coordinate the training requirements with the Calhoon School and Chesapeake College to deliver the program. It is expected that 300 area workers could be trained in a two year time frame.

Cost

1. The Vessel Fire Fighting program is expected to require \$2 Million in infrastructure and program fees for the first year matched by an estimated land value of \$1.2 Million from Calhoon MEBA. Calhoon MEBA will deliver 30 programs with 24 students in each program per year and will train 1,440 students over a two year time. The cost per individual is \$1,500 for the one week program.
2. The trade skills training funds to support regional trade skill development for area employers requires \$500,000, most of which will be used as a match for area employers to train 300 individuals in trade skills over 2 years.

Project Partners

- Calhoon MEBA Engineering School
- Talbot County
- Maryland Department of Business and Economic Development (DBED)
- Mid-Shore Regional Council
- U.S. Department of Commerce, Economic Development Administration (EDA)
- Chesapeake College
- Upper Shore Workforce Investment Board

PROJECT CATEGORY: CONTINUOUS LEARNING AND WORKFORCE DEVELOPMENT

ACTION: JANUARY 2012, THE CEDS COMMITTEE REMOVED FROM THE ACTION PLAN

DUE TO THE CURRENT LACK OF INTEREST AND THE EXTREME COST

RELATED TO THE PROJECT.

Chesapeake College Regional Technology Training Center

Priority Rating - High

Mid-Shore CEDS goal to be addressed: #1 Ensure that there is sufficient public infrastructure (e.g. telecommunications, IT, incubators, waste water treatment capability, roads, transportation, education facilities, technology training centers, and public parks) and investment capital to foster the development and prosperity of our existing and new industry clusters.

Background

Chesapeake College is a regional community college serving five counties of the Upper Eastern Shore of Maryland: Caroline, Dorchester, Talbot, Queen Anne's and Kent. The College was established in 1965 and has a commitment from the President and the Board of Trustees to provide economic development support in the region.

The College's Division of Continuing Education & Workforce Training is charged with providing training to employers throughout the five counties to improve and upgrade employee skills. The Division meets this challenge in two ways: (1) by continuously analyzing the needs of the community and offering courses from which citizens may choose; and (2) by developing and maintaining close relationships with employers throughout the region to determine their training needs and then developing customized contract training that is provided either at a College location or on-site at the company.

In 1996, the Chesapeake College Continuing Education Division was one of the first in the State to receive an Advanced Technology Center grant to build the capacity to deliver the types of training that were needed by local industry. The grant enabled the College to equip training labs for manufacturing, hospitality, and automotive industries. Training curriculum was also developed and the College has become the provider of choice when an employer wants training or professional development for their employees.

The College has developed partnerships with local employers to provide results-oriented training for their workers and as such plays a critical role in the development of the present and future workforce for the region. Project Description/Strategy

In 2000, in order to meet the growing demand by local employers for training, the College leased space on Brooks Drive in Glebe Industrial Park in Easton (Talbot County). Over \$125,000 was invested to furnish and equip the facility to deliver contract training to employers throughout the region. The annual lease is \$60,000.

With over 5,600 sq. ft. of space, the Brooks Drive Training Center includes a large meeting room (accommodates 50-60 people), a computer classroom with dial-up Internet access and 4 additional training rooms to accommodate about 20-25 persons each. Office space, restrooms and a kitchen/break room comprise the remainder of the space.

Additionally, there is a wireless cart with 20 laptops that are available for technology training. A new server and high speed internet connection are needed to make this location a more user-friendly resource for the entire community but most especially for the businesses in Easton, Cambridge and Denton and the surrounding communities.

The College proposes installing a T-1 line from Brooks Drive to the College's existing network equipment at Easton Memorial Hospital, with potential Virtual Private networking capabilities built into hardware.

Because the region is rural and both the Brooks Drive Center and the Hospital are within the same LATA, Verizon is the most likely provider for the T-1 line. The following steps are necessary:

Purchase the equipment and installation from Verizon.

Lease a T1 facility from Verizon to connect the Brooks Drive Center to the College network equipment at Easton Memorial Hospital

Make minor modifications and additions to the existing College network to incorporate the new location onto the network

Equipment needed includes:

New server	\$6,000
2 work stations	\$5,500
Upgrade hub to a switch	\$4,000
Printer	\$2,000
Router with VPN software, DSU/CSU (includes installation)	\$7,000
Cabling and various connectors	\$ 500
T1 lease for 5 years	\$25,000 (\$5,000 per year)
Total needed	\$50,000

Rationale

Maintaining a well-trained workforce is becoming an economic burden to many companies. According to the National Alliance of Business, companies have increased their spending on outsourced worker training steadily over the last decade, spending over \$19 billion in 2000. Employers recognize that the community college is a stable, local and ongoing educational resource with the ability to offer a full range of education and training.

Additionally, worker training has become a key component to almost every corporation's long-range strategic plan. On-the-job training used to refer mainly to apprenticeships that provided skills to workers learning a trade. However, technology use in the workplace has accelerated the pace of work and ramped up responsibilities and skill demands for workers at all levels. To provide workers with the skills needed to function in such an environment, companies are required to upgrade workers' knowledge and abilities continually.

Chesapeake College has the facility, the training materials, the instructors and the hardware and software needed to provide the technology training so necessary in today's corporate environment. The Brooks Drive Center is an ideal location for this type of training because it is centrally located, is in a business park and is already established, furnished, and equipped to deliver computer instruction. The missing and necessary component is better Internet access. The employers throughout the region look to the College for the short-term and customized training they need. Expanding the capacity at the Brooks Drive Center will increase the economic development strength of the entire region.

Demonstration of Need

The Upper Eastern Shore of Maryland, the region served by the College, comprises 20% of the landmass of the State of Maryland and 2% of the population. The population of the five counties is just over 150,000 -- 16,485 adults have less than a 9th grade education and 16,356 have education at the 9th -12th grade level but do not have a high school diploma. (See Table 1)

Table 1: Income & Education Levels by County

County	# of People in County (All ages)	# of Hispanic Origin	Less than 9 th grade Education	9 th -12 th Grade – No Diploma	Percent Below Poverty
Caroline	31,822	1145	1,401	3,482	11.7%
Dorchester	31,401	502	1,944	3,583	13.8%
Kent	19,197	546	837	1,942	10.7%
Queen Anne	40,563	444	1,182	3,258	7.5%
Talbot	35,683	856	1,067	2,795	8.3%

Source: 2000 Census Data.

(See Attachment 1)

The entire region has over 4,400 employers with nearly 45,000 workers. Only 50 of those employers employ 100 or more workers. Almost 85% of employers in this rural region are manufacturing firms, which require workers with high-level technology skills as well as low-skilled workers. However, the lower skilled production workers also need to understand and use technology to do their job.

The service industry is growing rapidly as the local population shifts to include more senior adults who retire to this beautiful area of the State. Hospitality, retail and small business employers all require workers who can use computer applications in the workplace. Although the seafood industry continues to be important to the region it is fast becoming an endangered species. However, even in this time-honored profession, new technology applications such as GIS and GPS are increasingly important.

In the past year, the Mid-Shore region, like many other rural communities in the country, has suffered significant loss of jobs. Manufacturers such as Airpax, Black & Decker and Hi-Tech Plastics have moved production work out of the country, leaving local residents with few options. Well over 1,000 workers have been dislocated and often need to upgrade their skills in

order to find work in more technical fields or even just to do the jobs now available in the workplace.

Although minority populations are significant throughout the Eastern Shore, Dorchester has the highest percentages of African-American and Hispanic residents and the highest level of unemployment at 11%. Of the five counties comprising the Mid-Shore, Kent, Caroline and Dorchester have the highest percentage of low-income families. A look at Effective Buying Income (Table 2) for these counties shows the range of income differences:

Table 2: Effective Buying Income

Distribution	Caroline County	Kent County	Dorchester County
Under \$15,000	26.7%	24.1%	29.0%
\$15,000 - \$24,999	20.3%	17.4%	21.0%
\$25,000 - \$49,999	38.2%	35.3%	34.5%

Source: Maryland Department of Business & Economic Development

Furthermore, these three counties are among the top quartile of jurisdictions in Maryland where significant percentages of families are considered at-risk. Some examples include:

- Teen mothers account for 63 of every 1,000 births in Caroline County; in Dorchester County, the ratio is 75 over 1,000.
- In 1997 40% of the births in Kent County were to unwed mothers; in Dorchester County, the percentage was 45%.
- The child poverty rate in Dorchester County is 25%.
- School dropout rates are also significant in Caroline County (6%) and in Dorchester County (5.2%).

Source: Census Bureau and Maryland Vital Statistics

Even though the median income level is greater, by comparison, in Talbot and Queen Anne's counties, the need for basic skills, technology skills and English language instruction is still evident: over 2,000 adults in Queen Anne's county have less than a 9th grade education and more than 3,000 have no high school diploma. Similarly in Talbot County, over 1,700 residents have less than a 9th grade education and 3,500 did not graduate from high school.

Clearly, residents throughout the region will benefit from opportunities to develop technical skills to prepare young people for the jobs of the future and to upgrade the skills of dislocated workers so they can support their families. The Chesapeake College Regional Technology and Business Training Center is centrally located, easily accessible and fully equipped to meet the growing need for technology training throughout the region. With the installation of the T-1 line

the Center will be able to expand the high-technology training necessary to maintain the economic competitiveness of the region.

PROJECT CATEGORY: INFRASTRUCTURE

ACTION: JANUARY 2014, THE CEDS COMMITTEE REMOVED FROM THE ACTION PLAN ON A REQUEST OF CHESAPEAKE COLLEGE THAT STATED “ALTHOUGH CHESAPEAKE COLLEGE REGIONAL TECHNOLOGY TRAINING REMAINS A PRIORITY FOR THE COLLEGE, THE COLLEGE IS PURSUING THE PROGRAM USING PHYSICAL RESOURCES THAT EXIST IN THOSE COMMUNITIES WHERE TRAINING IS CONDUCTED THAT ALLOWS THE COLLEGE TO FOCUS MORE FUNDS TOWARDS THE DIRECT PROVISION OF TRAINING.

Environmental Monitoring of the Chesapeake Bay

Priority Rating - Medium

Background

One of the indicators of the health of the Chesapeake Bay is the extent and coverage of the submerged aquatic vegetation (SAV). SAV is an important part of the Bay environment and is a nursery area for many species of aquatic life. The better the water quality, the more SAV. This project addresses the CEDS goal of strengthening our seafood and agriculture economic base.

The current methods for quantifying SAV coverage are very subjective. It does not allow for an accurate year-to-year comparison and requires extensive ground-truthing to verify the results of the interpretation. In addition, the turnaround time for the final product is more than 6 months and it cannot be used in real-time management of resources.

The results of these SAV surveys are used to judge the impact of the numerous environmental programs designed to improve the quality of the water in the Bay and its tributaries. This includes the mandated nutrient management plans that have been adopted for the farmers of MD. Millions of dollars are being invested in improving the water quality, but the assessment tools are obsolete.

Project Description/Strategy

The TCE will apply NASA developed technologies to the assessment of the SAV. An Eastern Shore company has had success in quantifying SAV in lakes and reservoirs with an airborne hyper spectral imager. This company may be contracted to apply this technology to the vegetation of the Chesapeake Bay. If successful, the benefits would include:

- First generation digital data that is navigated in flight. The product would be a map of the locations and types of submerged aquatic vegetation.
- Location maps that can be compared year to year.
- Quick turnaround time and images that can be posted to the web as soon as they are collected.
- Standardized image interpretation that identifies vegetation based on measured reflected light rather than manual interpretation.
- Develop cause and effect relationships between environmental programs and water quality that can be measured and results judged.

Cost

For \$200,000, a program could be developed to support annual surveys, analysis of the results, and a program to allow the regulated groups to access the data.

Project Partners

- USDA
- Maryland Department of Agriculture
- CBRTCE
- University of Maryland Eastern Shore

PROJECT CATEGORY: STRATEGIC PLANNING, ANALYSIS AND ACCESS TO CAPITAL

ACTION: MARCH 2015, THE CEDS COMMITTEE REMOVED FROM THE ACTION PLAN

AS IT IS AN INACTIVE/OUTDATED PROJECT; HOWEVER, A CHAMPION MAY
REINTRODUCE A SIMILAR PROJECT WHEN THE INTEREST ARISES.
